



For whom the bell tolls

The Government has announced that its urgency on the body of teacher training in England is now completed. While 20 institutions are to cease to train teachers by 1991, five which have been under threat since January have been saved.

But critical observers will have noted they have been only just saved. None of the five is to have more than 350 places and two will have only 300, though it is not long ago that 600 was being talked about as the minimum viable figures for a college of education. Small as they are to be, they will still add more than 1,100 places to the number the Government has estimated (on an expected up-turn in the birth rate towards the end of the decade, but it noted) will be needed by 1985.

They may relieve any or all? What considerations could the college deputations to Mr Gordon Oakes put before him that were unknown to his civil servants, when the proposed list of closures was published in January, based we were told on geographical location and provision of in-service training? Mr Oakes himself said at the time that he thought there would be little change when the revised list was published.

The academic argument is not markedly stronger for any of the institutions than for half a dozen others that have not been saved. Stronger, perhaps, in the case of one, St Mary's Newcastle, is the national argument that teacher training has been long the traditional pathway to higher education for girls and in the north-east the percentage of girls staying on even beyond the minimum leaving age is the lowest in the country. They

Comprehensive get-together

PRISE and the Campaign for Comprehensive Education have been collaborating for some time, sharing their administration. This week, however, sees their first joint political venture. Their twin ideologies are crystallised in a document, *Comprehensive Education—Our Last Chance?*, which was published on Wednesday (page 3).

PRISE (programme for reform in secondary education) is to a large extent a professional educators' spirit-raising group in the progress of a cause. Their members broadly subscribe to a manifesto which includes mixed ability teaching right through secondary school, open access to all schools, right up to 18, co-education, no corporal punishment, a general broadening of management structures, a common exam at 16-plus and a common core curriculum.

Since its foundation its members have spent a lot of time and energy in such topics, but now they are joined by the Campaign for Comprehensive Education. This is an older war horse bearing the scars of the earlier campaign to get comprehensive education introduced throughout the country. It has been predominantly concerned with structures, with doing away with 11-plus selection.

These two strands tied together in the new manifesto account for its dual emphasis on completing comprehensive reorganization by enforcing the 1976 Act and on pursuing within schools policies compatible with structures. The latter movement no doubt gains strength from greater numbers and a general feeling of solidarity. But PRISE

David Kirp urges the DES to use its powers under the new Act Come off race relations fence

The performance of the Department of Education and Science in the area of race and schooling has won the Department few friends. Various race relations organizations, among them the Community Relations Commission and the Runnymede Trust, have long been vociferous critics. While it may be in the nature of things for organizations primarily concerned with race to perceive government as never doing enough for their constituents, the raging can hardly be dismissed as a case of special pleading. Within the last month, the Labour Party's Home Affairs Committee (in a still confidential report) has lauded the DES for "long periods of inaction punctuated by hasty and inadequate measures" concerning race, and Tory MP Peter Walker has chided the DES's "remarkable complacency" in these matters.

In the face of such criticism, the DES's first line of defence has been to note its remarkably limited leadership in questions of discrimination. As is generally known, the new law specifically outlawed discrimination in education. Its administrative innovations in many instances have been in the field of ethnic minority children. Discrimination questions do not go to the heart of those educational opportunities which the new law, however, seem to want relatively to treat place to start.

David Kirp, from the University of California (Berkeley), is on the Foundation Fellowship scheme on race and schooling policy in the

Letters to the Editor

The case for black studies

Str.—In a book review which appeared in the *TBS*, June 24, David Kirp made several inaccurate statements about the objectives of my study *The West Indian Experience in British Schools* and about the role of black studies in a multi-racial society.

Mr Kirp states "... until now, no one has undertaken a systematic inquiry into the nature of the West Indian schooling experience in order to puzzle out what has gone wrong. Nor, differently, has anyone been brave enough to offer detailed policy recommendations."

My study was not concerned with either of these objectives, as the cover of the book explains: "This book gives an account of teachers' perceptions of the special educational needs of West Indian pupils in socially disadvantaged areas."

Mr Kirp also commented "Giles might have chosen so many schools in order to afford some basis for comparison making among them; if so, this end went unachieved. In no two schools was the same range of questions canvassed..."

The reader has only to refer to the introduction of my study to know I was most interested in conducting an in-depth study and was I concerned with making comparison among schools.

The central issue with which my study was concerned was posed in the words and teachers of all the schools visited in the following way: "As far as the staff of your school are able to determine, do the children of West Indian background in your school experience any special difficulties or disadvantages that affect their school performance? If yes, please describe briefly."

Discussions developed in the light of their various responses to this question. Teachers' perceptions were felt to be important since they serve as the basis for the development of different procedures and practices that are used to deal with West Indian children in multi-racial schools.

Finally, in asserting that black studies have become passé in the USA, in favour of literacy and numeracy, it should be pointed out that the two are not mutually exclusive. The need for a more positive self-image is just as important as the need for academic competence. In the United States it was in fact the black studies movement which led to the revolution in curriculum in primary and secondary schools across the nation, culminating with the passage of the *Equal Educational Opportunity Act* in 1974. In this Act the United States Congress affirmed the right of not only black children but all children to take pride in and learn about their ethnic heritage and the background and heritages of others.

The argument which regards black studies as being divisive is multiracial in contradictions for a teach unit society. To continue to do not allow children to respect and value their ethnic and cultural background and those of others, results in real division.

RAYMOND GILES,
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Incentive to lie

Str.—When the Housing Commission report and discussion was published, I was surprised to see many attempts to resolve the problem of inadequate grant awards, the Department of Education and Science is not the only Government department at present guilty of discrimination.

Mary leaves my school this week. Subject to her award of an education grant, she will enter university this autumn. She has registered as being unemployed and because she is over 16, she is entitled to receive an income as defined in the Department of Health and Social Security *Further Education Regulations* 1975. She is entitled to receive £9 as a supplementary benefit for every week between now and entering university and also during vacations.

Dawn also left my school this week. Subject to her award of an

Oxford strike: minister asked to mediate in row over cuts

A government mediator has been asked to settle the dispute which has been brought by nearly 400 Oxfordshire teachers on strike and closed 29 schools.

The request came from the National Union of Teachers, which called on teachers in schools in the city of Oxford in protest over the government's plan to cut 344 jobs over the next year. The union's request for mediation came after Margaret Jackson, a junior education minister, told MPs in the House of Commons on Tuesday that she would help to settle the dispute if she could get the government to agree to a system originally intended to provide cover for absent teachers. The union claims the device to cut down staff. County authorities reply that it is merely a safeguard and that most will probably be taken on the permanent staff before their contracts expire.

This, it was announced at a press conference on Tuesday, had already happened to 60 primary school teachers. Brigadier Streetfield, chairman of the education committee, said the move could push the cost of £100,000 would have to be found within the budget if staff savings estimates were not fulfilled by September.

The dispute, which has brought the NUT out on strike for the first time for four years, centres on staff cuts. At stake in the long term are 344 jobs which Oxfordshire has cut from its budget for next year. The more immediate issue involves a number of part-time teachers on short-term contracts who stand to lose their jobs when their contracts run out this year.

At the NUT strike office, there is talk of extending sanctions, and the strike next term if the county council will not give in. At county hall, the chairman of the education committee says he can hold on to the NUT is very much on its own in the dispute. Other teachers' unions appear unenthusiastic and parents have shown little interest, barring a few animated parent-teacher associations.

Some 14,000 schoolchildren are rejecting in an unexpected holiday strike, but the NUT's predicted 10 days. Certainly the 60 or so people who participated in a fringe march to the county hall on Tuesday were there more for the fun of it. Their banners called for sympathy for their teachers and for their own loss of education, but questioned afterwards, they did not clear they were delighted to be out of school. Asked if she was sorry to be missing school, one of the girls, earlier in the day, exclaimed: "No fear. It's the best day of my life!"



Brigadier Streetfield

Meanwhile those head teachers who have not joined the strike are being the quiet spell to catch up on classes like stockpiling and filling the shelves.

The leaders of the counter-strike are struggling about a council in the over-simplification of proposals. Some NUT members say 400 jobs are at stake; county hall officials talked first about 160, which they implied were more a possibility than a reality. Nobody could say precisely how many people were involved but the NUT's figure was reduced to 100 by a surprise announcement on Wednesday afternoon that 60 primary school teachers on short-term contracts had been appointed to normal full-time posts.

The NUT's official claim is that 344 jobs are being lost, a figure arrived at by calculating the number of extra teachers the county would need had to maintain the existing education and staff were inevitable. The education budget, he said, had been cut slightly less than its size merited by £2.6m instead of £3.5m. The difference had been made up by cuts in the cost of the programme.

He added that the county had already gone with their reserves beyond the safety margin recommended by the Government and contingency funds to off-set inflation had already been depleted by £1m by an increase in teachers' salaries. Nor would it help, he said, if safeguarded and that most will probably be taken on the permanent staff before their contracts expire.

Aspects of the campaign that alarmed Brigadier Streetfield were the influence of the force of the use of young children in demonstrations. This was a reference to demonstrations at county hall since the cuts were first mooted last year. There were three small demonstrations on Tuesday, first by parents and young children, next by two bands of marchers who intended to present a petition but forgot it in the excitement.

The outcome was a confused and noisy melee about the force of the county hall. Staff inside were amused. Children outside yelled slogans with enthusiasm, and the adults—few dozen teachers and the sprinkling of parents—shouted down Mr Streetfield when he attempted explanations.

Afterwards he said he was convinced most of the county was opposed to the strike, though he admitted that his pug-bag had brought more letters from protesters than otherwise.

Both sides in the dispute claim concern for the children, though neither has made any arrangement for the thousands displaced from school. Some teachers, though, have optimistically set themselves up in Members of other unions have been advised to continue their normal work where possible but most have seem to have taken the line that they have been left with too few staff for effective control and closed their schools. This has led to some complaints from members of the Professional Association of Teachers, who are pledged never to strike, that they are not being allowed to work.

Heads, they say, are ignoring letters from the county saying that teachers who wish to work must be allowed to do so. In the schools are open, there are still a few NUT teachers who have not abandoned the classrooms.

Secondary selection 'creeping back'

Selection, far from being on the retreat in Britain's secondary schools, could well be making a comeback, according to a group of comprehensive campaigners.

In a report published this week they say the largest government department is a genuine concern for secondary school re-organization. They say that the report is the work of parents and teachers from the Campaign for Comprehensive Education and the Campaign for Reform in Secondary Education (PRISE). In it they say selection is still a widespread phenomenon and they are particularly concerned that it may even be brought back in some place where it has not been.

They see the claim that the move to comprehensive education is nearly complete as misleading, not only because of the large amount of selection which still exists, but also because of "co-selective" grammar schools run alongside comprehensive schools.

The report says the Government should see the 1976 Education Act as a chance to observe the law and end selection. Less than a third of all English L.E.s have completed the changeover to comprehensive and unless active steps are taken by the Government "between 1975 and 1976 the percentage (of pupils) in maintained grammar schools dropped by only 1 per cent, over 500 maintained grammar schools remain in complete non-selective and 4 per cent of comprehensive schools are still officially selective."

There has been a rise in the number of selective places local authorities are buying in private schools, leaving places in comprehensive schools empty. Direct grant and private school "place-buying" by local authorities can perpetuate 11-plus or 12-plus or 16-plus selection in precisely the same way as failing to develop co-selective grammar schools non-selectively.

The report is critical of the attitude taken by Mrs Williams, the Education Secretary, towards reducing L.E.s. "Only 26 out of the 75 L.E.s which remain to be reorganized have received requests for short plans for their remaining schools. All should be asked to

Schools tests bank all set to go into operation

Work starts this month on a vast bank of test questions that may be able to draw on to revise tests tailored to their own requirements.

With the work of schools under greater scrutiny than ever, many local authorities are looking for some form of testing or monitoring for screening or reassurance. At least 10 have now established some sort of authority-wide testing programme and several others are discussing what ought to be done. For this reason the National Foundation for Educational Research has decided to set up a test bank.

The aim in charge of the foundation's testing and guidance services, Dr Rex Sumner, said this week: "Schools everywhere are encountering a tougher atmosphere. Parents and industry are being more critical and the teachers' wisdom is being questioned, so many L.E.s have decided to organize a defence at authority level."

To begin with, the foundation will concentrate on maths and language. The target age range will be nine to 13. The idea is to collect a large number of tried and tested questions which can be drawn upon to test the sort of curriculum objectives or ages the school or local authority is most interested in.

Dr Sumner said: "Many L.E.s are working out their own schemes for test questions. The trouble is that what they want never quite fits if teachers tried to devise their own tests they found it took a great deal of time and effort and the results were not always as reliable or in more interesting in testing than previously. Certainly the foundation has no such doubts. Apart from the feedback it has been getting from its regular consultations with L.E.s, difficulty as compared with other questions and also according to how

Edward de Bono's CoRT Thinking lessons can be used in the English class

Accumulating experimental evidence shows that the CoRT Thinking lessons do lead to a marked improvement in general thinking skills. This is hardly surprising since direct attention to a skill usually leads to improvement in that skill. The CoRT Thinking packs are in use in hundreds of schools in this country and overseas. The CoRT packs provide a structured approach to the teaching of traditional subjects is quite insufficient as a preparation for the general thinking skills required outside an academic career.

Please send me details of the CoRT Thinking lessons:

- CoRT I (breadth)
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- CoRT IV (creativity)
- CoRT V (information & feeling)
- CoRT VI (action)

* CoRT VI provides a general thinking framework that can be used independently of other CoRT material.

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Question: who wants to stay on at school?

Boys who hope to become teachers get dramatically lower A-level results than their colleagues who have opted for Oxford and Cambridge. A survey published today shows that sixth-form boys aim, to a lesser extent, girls, who have set their sights on a teacher training college get considerably poorer examination results.

Three quarters of the sixth-formers who aspire to the Oxbridge prizes get more than 11 points in A levels in a system where a grade A equals 5 points, B equals 4, C is 3, D is 2 and E is 1. Only 3 per cent of boys and 6 per cent of girls who want to be teachers obtain 11 points or more. The median score of Oxbridge hopefuls is 11. For boys and girls for girls. Potential teachers' mean score was 5.5 for boys and 3.3 for girls.

These results are contained in a survey from Lancaster University on the attitudes of fifth and sixth-formers to school, work and higher education. Extensive extracts from the survey were first published in the TES in March last year. The new information on exam results is included in the final version of the survey's report which has been presented to the Department of Education and Science, the sponsor of the original research.

The DES commissioned the work two years ago from Alan Gordon and Gareth Williams of the university's Institute for Research and Development in Post-Compulsory Education when it became clear that the target of 640,000 places in universities and polytechnics by 1981 was not going to be met. The Government wanted to know why young people were not applying for higher education.

Interviews were arranged with 806 fifth-formers and 1,986 sixth-formers. Taking the fifth-form sample first, the researchers found that nearly two thirds of the boys and more than half the girls said they would leave school as soon as the school year ended.

Among the fifth-formers about a third of the boys and more than two fifths of the girls in a group who claimed never to have considered staying on beyond the minimum school leaving age. At the other extreme a third of the boys and more than two fifths of the girls had definitely decided to continue their full-time education, either at school or at college.

This left about a third of the boys and girls who may be considered susceptible to influence at or about the end of their compulsory education.

One in ten of the boys and 14 per cent of the girls were planning to continue their full-time education in further education after 16. When asked why they were not considering another institution more than half said they wanted to study a course that was not available at school. Just over a third said they were fed up with school or resentful at certain aspects of their secondary school experience.

Ten per cent of the pupils had not entered for any CSE or GCE examinations and a further 40 per cent failed to obtain any GCE or CSE grade 1 passes. Examination passes are closely related to school post school institutions but there are some important discrepancies. One in 10 of the boys and nearly a quarter of the girls who achieved five or more passes at GCE (Grades A, B, C) or CSE Grade 1 intended leaving school at the end of the fifth year and going out to work.

Fifth-formers who wanted leaving school but continuing their studies full-time at a further education or technical college had a lower level in their examinations than those staying on at school. Although only 11 per cent of the sample planned to do this (89 pupils) over 80 per cent of those passed four or fewer subjects at GCE or CSE Grade 1. In fact about a third gained no passes at this level at all.

Pupils who said they were going out to work after the fifth year were asked what they had decided against staying on in full-time education.



Yes—a third
No—a third
Don't know—a third

Stephen Cohen reports on a survey of what pupils think about education



Nearly one-third of the boy leavers and 41 per cent of the girls gave their desire for money, either for themselves or to help their families as the main reason for leaving school for work. However, the most frequently mentioned reason for leaving school after the fifth year was that the pupils were bored.

Fifteen per cent of leavers felt they were not good enough or schoolwork to carry on with their full-time education and 14 per cent considered that they had enough education for their needs.

Previous studies have shown a strong relationship between a pupil's propensity to continue his studies beyond the minimum school-leaving age and his or her home environment. This study confirmed that these influences continue to operate; the higher the socio-economic status of a child's father the more likely is the child to expect to stay at school.

Over a quarter of fifth formers said they would have left school at the end of the fourth year if they had been allowed to do so. A third maintained that their fifth form experiences had put them off continuing their education.

Comparatively few pupils, however, felt they had been treated like a child at school, 59 per cent opting for the statement "I have been treated like an adult at school this last year". Over three quarters said they had got on well with most of their teachers during their fifth year in school.

Four out of every 10 fifth-formers felt they ought to leave school at 16 to start paying for their keep at home. This feeling was strongest among those fifth-form leavers who had never considered the option of carrying on at 16. Nearly one in five of all boys and a quarter of all girls maintained that their parents needed the money.

Those pupils leaving school for work after the fifth form were asked whether they had heard of the discretionary awards that local education authorities can make to help a young person stay on after 16. Just over a half of the leavers said they had. Just under a third of all leavers said they would have considered staying on at school or college if a grant had been available. When asked the level of grant that would make them decide to stay on, half of the possible leavers gave an amount of £10 or less (worth about £14 at 1977 prices).

The sixth-form survey showed that 64 per cent of the boys and 68 per cent of the girls hoped to go on to higher education straight from school or college. One in 10 wanted a break between school and higher education and 12 per cent planned taking a job from school that involved doing some part-time education.

Pupils studying for their A levels in further education were asked why they had chosen to continue their full-time education in this way. For a substantial number of boys and girls it was because their schools did not do A levels or did not offer them in the subjects the pupils wanted to study. However a larger number, especially among the girls, were dissatisfied with school for other reasons including a third who felt they would be treated like an adult at college and a further 19 per cent who wanted a residential environment.

The most common number of A level subjects being taken was three with 57 per cent of boys and 53 per cent of girls taking this number. On average boys took rather more subjects than girls.

Pupils from direct grant schools were considerably more likely than others to obtain good passes in their A-level examinations. More than 50 per cent of candidates from comprehensive schools obtained an A-level score that would not normally qualify them for entry to university.

Employment of the subject was by far the most frequent reason given for selecting a particular subject at A level. However the sciences (including economics) were less likely to be taken for reasons of enjoyment and more likely to be taken because they are felt to be useful for a job. In addition pupils studying sciences did not feel they were particularly good at the subject in comparison with pupils studying other subjects. In spite of this, pupils who took sciences at A level obtained an average higher pass-mark than those who took non-science subjects.

The 17 per cent of boys and 15 per cent of girls not intending to enter full-time higher education straight from school or college were asked why not. The fact that a place in higher education could be obtained later on, being fed up with studying, career considerations and the low level of student grants attracted most support.

Pupils hoping to go on to higher education were asked how they made their choice of institution. The appropriateness of the course, the reputation of the institution and its geographical situation were all equally mentioned by more than a quarter of the respondents. Boys were more likely to be attracted by the reputation of the insti-

tuion and girls by the fact that the most appropriate course was being offered. There were substantial differences in the level of performance of aspirants to the three Oxbridge universities. Cambridge University were overwhelmingly the first preference choice with 30 per cent of boys and 25 per cent of girls choosing this university. Aspirants for the other universities had some way behind with those favouring some elite universities leading the field at Oxford University and then the other colleges were the other further education colleges were the first preference choice largely of those who subsequently do not go to A level and the performance of those who chose the colleges of education was no more in line.

The majority of 18-year-olds had a clearer idea of what they would like to do than the pupils in direct grant schools. Girls were more likely than boys to have a firm idea of what they wanted to do. The fact that four-fifths of young people interviewed were able to express a fairly clear idea of what they felt to be their source of interest on the whole belief that large numbers drift into education through inertia.

Girls, on average, had lower career aspirations than boys, although there was evidence to suggest that sixth-formers had comprehensive or secondary modern schools or further education colleges have less than their pupils in direct grant, independent and grammar schools.

Half the boys and more than half the girls felt they had not had enough help, advice and information in deciding what to do at A levels. Again, while this is high, it is what less than one would expect from research on this subject.

More than 180,000 cards have been ordered by British breweries for the country's 73,000 pubs, and licenses are also being sent in a four-page leaflet on the law as it affects children and young people.

Earlier this year the Brewers' Society devised a project for secondary schools on the dangers of alcohol abuse. Based on a teenage comic called "It's Your Round" it is accompanied by teachers' notes.

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THE UNDER 18 RULE

The law says that people under 18 must not drink or purchase alcohol in this bar. The licensee and staff will refuse to serve alcohol to anyone who is or appears to be under 18.



Looking teenage tinkers with yellow tickets

Teenagers who venture into pubs after 10 will be presented with a yellow card similar to the schoolboy's traditional warning to ball players telling them that they have broken the rules. They will also be confronted by a black and white poster (pictured above) warning the law relating to these warnings from the Brewers' Society and Licensed Trade Commission.

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Educational broadcasting of 'tiny benefit'

by Carolyn O'Grady

The Annan Committee received no evidence that educational broadcasting had achieved any definite results anywhere in the world, said Anthony Jay, freelance producer and member of the Annan Committee, at the Inter Naxos '77 conference last week.

He personally believed, he said, that educational broadcasting did produce educational benefits, but that they were tiny in proportion to the money spent. Though there was still a role for educational broadcasting at local level and for very topical subjects, "idea records" and videotaping will eventually shift the emphasis away from on-air to off-air broadcasting.

He should not think in terms of broadcasting but of video-tape. The Government did not want to enforce integration of Catholic and Protestant education in Ulster against people's wishes, Lord McChertch, Minister of State for Northern Ireland, told the House of Lords last week.

Lord McChertch, who was speaking during the second reading debate of Lord Dunleavy's Education (Northern Ireland) Bill, emphasized, however, that it was Government policy to encourage integrated education in Ulster. He spelled out some reservations to the Bill but Lord Dunleavy refused to withdraw it and it received its second reading. It is, however, unlikely to make much progress this session, especially if it ever reaches the Commons.

Lord McChertch said the Government had to consider the genuine desires of the people and of influential parents. Given the attitude of the Roman Catholic church, any attempt to force integrated education in Northern Ireland could only be counter-productive.

He acknowledged that all those in Northern Ireland who favoured integrated education saw it not as the immediate answer but as a long-term goal which was an inevitable but important means of bring-

ing the two communities closer together. It was a fact that the Roman Catholic church in Northern Ireland wanted Catholic children to be educated in Catholic schools; the threat of Protestant Churches were not opposed to integrated schools as such, but were concerned that schools should not be secular and that the teaching of religion should be an integral part of education.

All the surveys of public attitudes that were available, showed a large majority in favour of integrated education. On the other hand, many parents undoubtedly wanted their children to be brought up in either a Protestant or Roman Catholic culture.

The Roman Catholic hierarchy were not in favour of a conference on integration and would be highly unlikely to take part in one. If there was to be progress—and he hoped there would be—it would be achieved by facing the facts and by adopting a strategy that showed some promise of practical results.

The Government's strategy was based on two beliefs. The first was that it was not for the Government to seek to impose integration. The second was that the Government

And we should make sure that it is available in the way teachers want, where they want and how they want. Instead of looking at what broadcasting had to offer, we should be asking what teachers wanted from audio-visual aids and broadcasting.

Phrasing the question in this way revealed that there was a deep incompatibility between audio-visual aids and broadcasting. Broadcasts, he said, were sent out at fixed times, which meant that teachers had to arrange classes round them unless the programmes were videotaped, in which case it would do just as well. Broadcasts would do just as well as video-tapes, which could be repeated a few times, when most teachers wanted to use

material over and over again. Again, of course, the programmes could be videotaped.

Broadcasting was mainly organized on a national basis which meant that local material could rarely be included. The teacher could not stop and start broadcast material to put in his own material or for a discussion. He could not play programmes over and over again to familiarize himself with them before showing them to a class.

Economically it was difficult to make very short programmes, though three or 10 minutes was often an ideal length for classroom use. Copyright problems were less ticklish with video-tapes, which were not compatible with broadcast-

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Broadcasting was mainly organized on a national basis which meant that local material could rarely be included. The teacher could not stop and start broadcast material to put in his own material or for a discussion. He could not play programmes over and over again to familiarize himself with them before showing them to a class.

Economically it was difficult to make very short programmes, though three or 10 minutes was often an ideal length for classroom use. Copyright problems were less ticklish with video-tapes, which were not compatible with broadcast-

could be bought once and for all that with broadcast material. It was difficult to compile an integrated catalogue of broadcast material which could be used by the teacher.

Finally, he said broadcasting was essentially for entertainment. For economic reasons "even education producers wanted to see their programmes". Broadcasting could rarely cater for the specialisms of education.

Educational material, he said, was often of very narrow interest, had to sacrifice humour to clarity and had to include a great deal of repetition, characteristics which were not compatible with broadcast-

ing the two communities closer together. It was a fact that the Roman Catholic church in Northern Ireland wanted Catholic children to be educated in Catholic schools; the threat of Protestant Churches were not opposed to integrated schools as such, but were concerned that schools should not be secular and that the teaching of religion should be an integral part of education.

All the surveys of public attitudes that were available, showed a large majority in favour of integrated education. On the other hand, many parents undoubtedly wanted their children to be brought up in either a Protestant or Roman Catholic culture.

The Roman Catholic hierarchy were not in favour of a conference on integration and would be highly unlikely to take part in one. If there was to be progress—and he hoped there would be—it would be achieved by facing the facts and by adopting a strategy that showed some promise of practical results.

The Government's strategy was based on two beliefs. The first was that it was not for the Government to seek to impose integration. The second was that the Government

And we should make sure that it is available in the way teachers want, where they want and how they want. Instead of looking at what broadcasting had to offer, we should be asking what teachers wanted from audio-visual aids and broadcasting.

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Thumbs down to core school cert

Even if there is to be a single common core curriculum it should not be accompanied by a single, group certificate exam, says the Manchester-based Joint Matriculation GCE examination board.

The idea for a certificate for 16-year-olds like the old Higher School Certificate and covering English, maths, a foreign language and science, arose during the Great Debate. It would not be in the best interests of pupils or schools, the JMC said this week in a statement sent to the Department of Education and Science.

With the great majority of secondary pupils now taking some form of public exam, it was difficult to see why a single such group certificate should be placed, or the effect it would have on those not of the required ability. Such a certificate would greatly affect the whole school curriculum.

The board estimates that a core would take up 70 to 80 per cent of the curriculum. "How would this affect the teaching of other languages, history, geography, the social sciences, the classics, business subjects and handicrafts?" it asks.

Alan Wood

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College principals press for decision on CEE

A quick decision in favour of the Certificate of Extended Education is vital to the future of sixth forms in comprehensive schools, the principals of sixth-form colleges have told the Association of Principals of Sixth Form Colleges to the minister who released this week. It said the association were unanimous that only the CEE could meet the needs of the "new" level sixth form.

"The future of open access sixth-form colleges is dependent on a quick realisation of the CEE," the principals say. "All alternatives are less worthwhile than the CEE."

They claim to have a great deal of evidence showing that the CEE is in great demand. Thirty per cent of last year's sixth formers wanted courses of this type. They query the figure of 40,000 likely candidates suggested in the Schools Council's original submission on the CEE. The principals say this is more likely to be 75,000 candidates if the CEE is officially approved.

In the colleges which have the longest experience of CEE courses, some 50 to 60 per cent of first year students study one or more CEE subjects. We have ample evidence from many parts of the country that the CEE is the most popular form of post-16 education. It is the Secretary of State's delayed acceptance.

Though it was unreasonable of the DES to demand, as it had, convincing evidence of the market value of the CEE on the basis of the pilot trials alone, there was some demand from parents and students was strong and growing and there was evidence of employers, especially local employers, giving credit to the CEE. Some were favourably impressed by the importance of the pupils themselves attached to CEE work.

The Certificate had significant advantages for the new sixth form over CEE. It avoided the demoralising repetition of courses, continued teaching and assessment techniques were used to; and was flexible enough to recognise individual vocational interests along with basic numerical and literary skills. It does not push the uncommitted to measure training.

To the Secretary of State's view that not enough account had been taken of the relationship between CEE and the common system of schooling at 16 plus and that proposals, the principals say: "We are quite frankly anxious of the group of real understanding of the group of students for whom CEE is intended."

N syllabuses were beyond the capabilities of most courses were former end O level inappropriate, frustrating and quite inappropriate. It is our unanimous view that the Joint 16-plus proposals will not impress the 16-plus students, nor will the proposed CEE courses. The CEE, when combined with N and F proposals. An ongoing course of this type can also do this with full educational value.

If CEE is not nationally available, and soon, a severe loss will be done to a large number of students in open access sixth form colleges. In our view, have a choice of imaginative courses and better, repetitive and totally appropriate O levels."

Tories to fight for free school

The Inner London Education Authority's decision not to fund the White Lion Free School to the tune of £20,000 a year is being challenged by the Conservative opposition.

In an unexpected intervention the Tory opposition in ILEA is insisting on a debate in a full meeting of the education committee instead of the usual unqualified acceptance of the schools sub-committee recommendation. Mr Robert Vigers, leader of the opposition group, says if that move fails he will press for a debate in a full meeting of the authority.

Elsewhere there has been an angry reaction among educationists, who have objected to the argument adopted by the main speaker for the ILEA. Mrs Mair Garside, who told the schools sub-committee last week that to fund a school outside the system when others within it were in need of help, would constitute a slur on ILEA's schools and its teachers. Miss Margaret Maden, head of Islington Green School, said: "I find that line of argument very difficult to take seriously. It is not worth listening to. There is room for all sorts and types of school."

Mrs Kathleen Mitchell, head of Plimlico School, referred to the "quite moribund work" of the White Lion Free School and said: "I take the view that there are many mansions in education. Some children need something very different from the mainstream and all big schools are hoping eventually to have access to smaller units for children who cannot fit in."

The experimental school is not a threat; a minority has a right to exist in a healthy society.

Mr Tony Wingate, head of Rutherford Boys School, said: "I am in favour of alternative education for young people who do not fit into the normal school—and we have to recognise that some children do not."

Mrs Anne Page, who led the fight for the school within the Labour group, and who is also the party whip on the ILEA schools sub-committee, said afterwards: "It is all quite disgraceful and a wrong move." Karlier has taken the highly unorthodox step of refusing to give a whip or to vote with her party.

She told the sub-committee the school was trying to work out in

practice some of the questions preoccupying many teachers working in urban schools: "It must be of value to such a large authority to have at least one example of alternative ways of operating." She lost the day and financial aid was refused by a vote of nine to six.

Mr Peter Newell, until others involved in running White Lion Free School said afterwards that they were dismayed and depressed by the decision. They have offered every assistance in placing their children in other schools but they fear that many of them will be lost to education.

Mr Newell said: "It is difficult to see how they will fit in. They are going to be surprised by the lack of democracy and logic in secondary schools. They have been used to involvement here." Of the 37 White Lion schoolchildren of statutory school age, 19 have already either rejected, or been rejected by ILEA schools. The rest, minus their siblings of the 19, have chosen to be there rather than attend the traditional schools. The school also has a small nursery group.

In the five years of its existence White Lion Free School has had the support of the Wages Education Act, which has provided between £30,000 and £40,000 a year and it won the qualified approval of Her Majesty's Inspectorate after a formal inspection in 1974. The school has received financial and other support from Islington Borough Council and its educational reputation is such that a knowledge of its work is required of students following the Open University's urban education course.

The ILEA Labour group's objections stem from the school's independence. It has urged the school to drop its registration as a school but then it would be illegal to have more than five pupils. It has complained that the school has more staff than ILEA schools and that the staff are not paid "appropriate negotiated rates" (they take equal shares from a pool).

In a report listing these objections the Labour group includes a sour reference to the press, which it accuses of portraying the authority as "a hireocratic Goliath slaying a brave and progressive David".

Detention of delinquents takes another knock

Another call for children in trouble to be taken out of institutional care and looked after in their own neighbourhoods was made this week, this time by the Personal Social Services Council.

In a report on the concept and record of community care, otherwise known as "intermediate treatment", the council says specially intensive experimental versions of it should be tried out on residential delinquents to see how they compare with detention centres and borstals as a method of treatment.

The council wants as much commitment and cash put into community schemes as has been put into children's homes and institutions. Intermediate treatment should not be regarded just as a supplement to residential care, but as an alternative, available to all kinds of children in or hovering on the edge of trouble with the law.

Some of the main points in the report will have to be worked out by local authorities. Local authorities should be encouraged to fund projects.

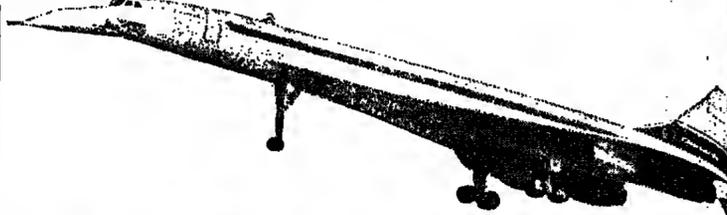
They should consider the

education, probation, youth and social services are all involved in planning the new community schemes. Cooperation, both regional and local, will be necessary at all stages, the council says, and must include the police, probation officers, youth workers and the families of the children concerned.

Social workers should be able to specialize in intermediate treatment work and both their basic and in-service training should cater for it. Youth workers should be used to help train others working on such schemes.

The National Association for the Care and Resettlement of Offenders has welcomed the council's report. Mr Vivian Stern, NACRO's director, said this week that developing community treatment for young offenders should be a priority.

"It is a realistic view," he said, "which recognizes how futile it is to create a child in isolation from the



Somebody loves that boom

Not all New Yorkers regard the Concorde as a nuisance. Quite apart from the business community in the city bursting to collect as many as possible of the certificates which British Airways and Air France hand out to supersonic travellers—in the very shipping companies used to provide travellers across the Equator with a Crossing the Line certificate—a group of scientists at the Lamont-Doherty Geological Observatory has been using the supersonic boom of Concorde as a means of studying the upper atmosphere.

In the account of this work published in the current issue of Science (July 1), the three geophysicists, N. K. Basichandran, William L. Donn and David H. Reed, say that sonic booms from supersonic aircraft are potentially valuable probes of the upper atmosphere, and that the regularity of the Concorde service to Washington has made their preliminary study possible. Whether this small-scale testimony will help British Airways in its battle in the United States courts remains to be seen.

The observations of the supersonic boom from Concorde have been made possible by the array of detectors of atmospheric pressure variations installed at the observatory just across the Hudson from Manhattan. In the past, the system has been used for detecting the effects of nuclear explosions and the like. Because the pressure detectors are all linked together, it is possible to measure not merely the amplitude of a sound wave but its direction of travel as well.

The results now reported are at first sight surprising. The array of detectors in New York picks up two or three pulses of sound waves from most of the incoming Concorde flights in Washington. These are typically about a metre long, and separated from each other by as much as 10 or 11 minutes. The frequency of the sound waves is exceedingly low—only one or two cycles per second—and thus well below the audible range.

The directional properties of the detector array make it possible to tell that the signals come from a point on the flight path of Concorde to Washington about 165 kilometres from New York. At that point, the aircraft is on its descent from its cruising height of 16 kilometres, but still travelling supersonically.

The frequency of the sound waves is thought to be consequence of the supersonic shock wave, but this does not reach New York directly. Instead, three quite different modes of travel are to be involved. The first group of waves is thought to consist of two kinds of signals, the fastest of which is thought to have travelled up into the upper atmosphere and has then been turned back again towards the surface by refraction at a height of about 50 kilometres.

The later part of this first signal is thought to be derived from the reflexion of the supersonic shock wave from the surface of the sea up into the atmosphere and then back down again.

The signals which arrive still later are of still lower frequency but have apparently travelled by more complicated and interesting paths. Some of them, for example, appear to have travelled for olivine the atmosphere proper to a height of 25 kilometres or so before being turned back up towards the surface. The frequency of these signals is reduced because the shock waves are stretched out in the process of reflexion in the upper atmosphere.

Already it is clear that the behaviour of the waves of signals varies dramatically with the season of the year. The most spectacular record among those now published is for October 8 last year, when no fewer than five groups of sound pulses were detected, the last roughly half an hour after the first and thought to have involved four separate reflexions of the initial shock wave between the upper atmosphere at 125 kilometres and the surface of the earth.

What the people in New York hope from all this is that an accumulation of such records will provide information about the variation of temperature between, say, 20 and 125 kilometres in the atmosphere with the time of day and with the season. They say that information of this kind cannot easily be obtained by other means.

They are hoping that a second detector station in New Hampshire will be working properly before long, so as to glean information from a different part of the Concorde flightpath. No doubt British Airways hopes that Concorde will still be in service when it is ready.

People, other mammals and most vertebrates protect themselves against infection by means of immune systems of varying degrees of complexity. If foreign proteins or other foreign chemicals find their way into the bloodstream, the body reacts against these antigens, as they are called, by producing antibodies and by bringing into

action a complicated biochemical system by means of which the antigens are removed from circulation and eventually destroyed.

As the years go by, the system of how this system works is more completely understood, less is known of how it works. In the early 1960s, the protein defence against infection was thought to have no system of biochemical defences comparable with the higher animals.

This is the interest of a paper in the current issue of Nature (July 23) by C. R. Parish, of the British National University of Health Research. He has worked out an intriguing scheme which would have these primitive defence mechanisms persist for one and a half years. If further research Parish's scheme approximates to truth, the result will be a new immunological system, one which will need to face a wider range of antigens than the current system. The suggestion goes like this. Although invertebrates do not have antibodies like those of vertebrates, they do have "recognition" cells that attach themselves to antigens but do not carry out the killing process. They are spotted by the vertebrate's antibodies, then chemically broken down, eventually, with luck, by the vertebrate's immune system. The vertebrate's antibodies are those from foreign agents.

What Parish suggests is that invertebrates use a similar system to that of vertebrates. In their natural habitats, they are constantly exposed to antigens. These antigens are broken down by enzymes into small molecules, which are then used to synthesize antibodies. The antibodies are then used to recognize and destroy antigens. This system is thought to be a primitive form of the immune system.

How to open up classes to the disabled

Schools being urged to open up to disabled children are urged to recognize the need for special educational arrangements for the disabled. The report calls for the backing of government legislation where necessary to see that they get it.

Miss Mohr says that 55 per cent of those covered by the survey were newly educated and claims that nearly a quarter of them would have liked a chance to attend classes, either to recover missed educational opportunities of their youth or to get their leisure time.

She blames lack of coordination between the education department and the social services, whose special classes she describes as "one-way" in some cases and "no-way" in others.

An analysis of potential demand showed that a high proportion of

Unfair to girls: job creation comes under fire for bias towards boys

by Mark Jackson

A new row broke out over the job creation programme for school leavers on the eve of the Government announcement this week on its implementation. The Equal Opportunities Commission complained to the Prime Minister that the programme discriminates against girls.

Behind the complaint is the commission's growing concern at the domination of the main government-funded training schemes, and its failure to persuade the Manpower Services Commission to give what it regards as a fair deal to girls. The EOC, which says it has also met with a disappointing response from the Departments of Education and Science and Employment, wants the Prime Minister to enforce the MSC's statutory obligation to promote equal opportunities.

The EOC has warned that the Manpower Services Commission and its Training Services Agency intend to continue the existing policy of preparing girls for traditional women's jobs, despite the sharply reduced opportunities in these fields.

It says that the proportion of girls among the unemployed 16 to 17-year-olds has risen from 35 per cent to nearly half the total during the past seven years; but that notwithstanding, girls have a lower rate of placement in almost all the current training schemes than their counterparts of the 16 to 18-year-olds on job creation and almost of those being trained on incentive grants in industry are boys.

The EOC, which in its appeal to the Prime Minister quotes a Com-

mons Select Committee finding that the special difficulties of women have not been sufficiently recognized in the job creation programme, blames the fact that only two out of the 17 members of the area committees which run the scheme are women. It endorses the Select Committee's view that the MSC, the area committees, and the local authorities discriminate against girls not because they are "old-fashioned", but simply because they are.

But EDC officials add privately that the MSC's hierarchy, while theoretically committed to breaking down the training pattern which keeps girls out of many occupations, appears to believe that the country cannot afford at present to do much to change it. "In fact, it is not a question of money, but of attitudes and practice," said a spokesman.

"They don't really give much priority to the problem and the idea of positive discrimination to redress the disadvantages of girls doesn't seem to have got through in the training field generally."

The EDC has asked the Prime Minister for an assurance that any new Government-backed schemes for the education, training, and employment of young people should be designed so as to compensate for existing inequalities, and should include positive action to attract girls into areas of employment where women have been at a disadvantage. They want him to insist that any agencies using Government money in this field include industrial training boards should comply.

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TOPS calls halt

er education colleges who have been facing a cutback this year because of the Training Services Agency's determination to limit the programme to a "breathing space". The agency has decided to halt expansion of the programme, but not to cancel it until 1978-79.

The course concerned are for subjects, and have a high proportion of women. The agency's deputy chief, who plans to reduce the numbers of courses from 32,500 to 32,000, says the course of non-graduate students has been a significant factor in the decision to limit the programme. From August onwards, the agency will be able to claim the same allowances which have been available only to men.

Computing attracts leavers

Unemployed school leavers are learning to rival graduates for jobs in computing. The school leavers, many of them without O levels, are being trained as programmers and operators on Government-funded courses organised by the National Computer Centre.

More than 230 trainees, nearly half of them girls, are now on these 40-week "Threshold" courses, and 37 of the first batch have just passed the end-of-course examinations.

The courses are run by 12 further education colleges scattered throughout Britain, who provide a combination of theoretical instruction and practical training in business. Trainees are selected at the National Computer Centre at Manchester from applicants suggested by the careers service. Fees are paid by the Training Services Agency, which also provide a £1-a-week allowance.

Although in many applicants have a level selected as made on the basis of aptitude tests and interviews rather than academic qualifications. Anyone aged 16 to 20 who has not yet found a full-time job can apply, either to the local careers office or direct to the centre.

"I've found the course is divided equally between training in operating and in programming; for the final phase, students opt for further training at one of the activities."

Employment had deal

figures alongside a link of drugs habit is the words scrawling the walls of a new game centre at schools.

Chaired a board game being developed by the Christian Education Movement is intended to show how the objectives they set in life are affected by their choices. Players are asked, for example, a card that they are one of children of an unemployed and a mentally sick mother; or a card that they are a member of an unemployed family; or a card that they are a member of a family with a drug habit; or a card that they are a member of a family with a drug habit.

The game is based on the results of a survey carried out in London boroughs and the Midlands and the director of a social inquiry for the social services in England and Wales, Mrs. Doreen, said that the game is designed to help disabled living foundations, London.

People

Mr Bernard Henry, head of art history at Ravensbourne College of Art and Design, is to be president of the British section of the International Art Critics' Association.

Mr James B. Chandler, director of the education and human resources office of the US Agency for International Development, is to be director of the Geneva-based International Bureau of Education.

Mr George Pratt, senior lecturer in music at Keele University, is to be chairman of West Midlands Arts.

Mr C. Parrot, warden of North Buckinghamshire teachers' centre, is to be warden of Kempston teachers' centre, Bedford.

Mr Andrew John Collier, senior assistant education officer with Buckinghamshire County Council, is to be deputy chief education officer for Lancashire.

Sir Charles Groves, musical director of the Royal Liverpool Philharmonic Orchestra, is to be patron of Wundsworth Choir School, London.

Schools

Mr M. J. Molmen, head of the Corby Glen County Primary School, Lincolnshire, is to be head of the Leasingham C of E School, Lincolnshire.

Mr T. E. Stoneham, second deputy head of Beaufield School, Corby, Northamptonshire, is to be head of the Stamford Zone County Secondary School, Lincolnshire.

Mr M. Watte, deputy head of Cranborne Compton Secondary School in Dorset, is to be head of Bourne Secondary School, Cheltenham.

Mr R. G. Laycock, head of Grolton High School, Stafford, is to be head of Chosen Hill Secondary School, Gloucestershire.

Mr D. A. Saunders, head of Brunner School, Cleveland, is to be head of Cirencester Secondary School, Gloucestershire.

Mr John Gaggino, head of St Gerard's Roman Catholic Secondary School, New Milton, Dorset, is to be head of the new St Matthew's Roman Catholic High School, New Milton.

Mrs Marie Marley, deputy head of St Philip's Roman Catholic Primary School, Offerton, Stockport, is to be head of St Catherine's Preparatory School, Marple Bridge, Cheshire.

Mr Kenneth Corbeck, head of Allen Edwards Junior school, Clapham, is to be head of Woodmansterne primary school in Streatham, London.

Mr J. G. Marshall, deputy head of

Universities

Mr C. A. Mann, reader in veterinary physiology at the Royal Veterinary College, London University, is to be chair of veterinary physiology at Liverpool University.

Mr J. K. Macleod, senior lecturer in law at the University of Wales Institute of Science and Technology, is to be chair of law at Liverpool University.

Mr J. O. Sutherland, reader in chemistry at Sheffield University, is to be chair of organic chemistry at Liverpool University.

Mr James Eric McIntyre, section manager at ICI Fibres (Huddersfield), is to be professor of textile industries at Liverpool University.

Mr Robert S. Byrnes, chief scientist of the British Steel Corporation, is to be principal of Queen Elizabeth College, London.

Mr Christopher Robin Blincoe, senior research fellow at Birmingham University, is to be a professor of organizational studies.

In brief

Study holidays
The 1977-78 edition of Study Holidays has just been published by the Central Bureau for Educational Visits and Exchanges. It tells how you can learn about environmental protection in Austria, examine thirteenth-century music in Antwerp on a grant from the Ministry of Dutch Culture, and canoe in Scotland, among many other suggestions. It costs 30p plus 12p postage from the bureau at 43 Dorset Street, London W1.

Grand Western study
Schools from all over Britain can use the restored Devon section of the Grand Western Canal to study natural history, biology, environmental studies and other subjects. Four teaching packs on different aspects of the canal have been prepared by a working party of the Tiverton teachers' centre and can be loaned to teachers. Each contains posters of canals, an Ordnance Survey map of the Grand Western and four books, together with slides and a tape cassette.

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1978 Outdoor Studies Leadership and Geography for the Young School Leader. For further details of these and other courses contact Mrs. A. Pelev Townsend, Principals, Losehill Hall, Peak National Park Study Centre, Coalbrookdale, Derbyshire S50 2WB, quoting reference N.E.S.

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West Germany

Cooperative school plans have a hostile reception

by David Dungworth

A particularly bitter controversy over comprehensive education has emerged in the past six months in part of Germany, a country where this form of education has never had an easy ride.

At the end of last year the SPD and FDP parties in the North Rhine Westphalia parliament, with the tacit approval of the coalition government, published their plans to reform the 11 to 15 age range of secondary schooling. Their plans envisaged school centres, which would include the three existing separate types of secondary school: the Hauptschule (secondary modern), Real Schule (intermediate) and Gymnasium (grammar school).

Local education authorities covering areas with more than 10,000 inhabitants would be allowed to set up such "cooperative schools". The first two years will consist of a common "orientation stage", with pupils then placed according to their ability in the secondary modern, intermediate or grammar stream, all of which will be under the same roof.

Significantly, the state ministry of education would in future finance building new secondary schools only if they were organized on the cooperative principle.

The coalition partners had expected the CDU opposition in the Landtag to fight their proposals, but were caught off guard by a spontaneous wave of protest from the Philologenverband (the association of grammar school teachers), the Deutscher Lehrerverband (most of whose members are staff in secondary schools) and various parents' organizations from local up to Land level.

Parents, teachers and Christian Democrats both demonstrated in major cities, including the Federal capital, Bonn. These turned out to be some of the largest ever over educational issues in North Rhine Westphalia.

The protesters have a long list of objections. They say the cooperative schools are yet another example of the numerous educational experiments investigated by the socialists in recent years, inspired mainly by ideological rather than pedagogical considerations. Their introduction will mean the creation of a completely new type of secondary school which has no counterpart in any of the other Länder.

Parents who have previously had the right to choose the secondary school for their children in consultation with primary school teachers, fear that this decision will now be taken at the end of the orientation stage and only by teachers.

Children's university lawyers consulted by the CDU are convinced that the introduction of the co-operative schools would be unconstitutional, a view subsequently confirmed in a report by the legal department of the Bundestag.

On October 10-12 at North Rhine Westphalia's constitution by law the provision of different forms of secondary school for children of varying ability. The proposal to give local authorities the choice of setting up the new school-centres or retaining the separate systems is also unconstitutional because it takes secondary schooling outside the direct control of the state parliament, says the report.

It also says that this freedom of choice would mean that the kind of secondary school available would vary from one area to another depending on which political party happened to be in control.

Critics of the cooperative school see it as a back-door attempt to replace the traditional types of school with what West Germans call "integrated comprehensives"—in flagrant breach of Minister-President Herr Heinz Kühn's earlier promises that the latter would be limited to the 20 existing experimental schools. Constitutionally such a changeover would require a two-thirds majority in the Landtag. The SPD have 91 seats, the FDP 14 and the CDU 95.

A counter-offensive, supported by West Germany's TIC and the teachers' union, the Gewerkschaft, is being conducted by the SPD and FDP through press advertising campaigns and pamphlets. North Rhine Westphalia's education minister, Herr Jürgen Giersewski, maintains that it offers not only greater equality of opportunity for pupils, but is also the only alternative to shutting down many primary schools as a result of the falling birthrate.

The opponents of the Bill have succeeded in postponing its second and third readings until the autumn, and so it will not be implemented before August, 1978 at the earliest. They have also gained some minor concessions over the size of the new schools and parental rights over schooling, but they have so far failed to persuade the SPD and FDP to drop the whole idea.

Two main lines of action still remain open. The CDU could try to block the reforms once they have reached the statute book by having them declared unconstitutional by the State Constitutional Court in Münster.

Or they could organize a people's campaign against the controversial legislation. This would require the signature of 20 per cent of the electorate—about 2.4 million votes—only half the total polled by the CDU in the last state elections in 1975.

Should the coalition still refuse to withdraw the reforms, the state government would have 10 weeks in which to call a referendum of all North Rhine Westphalia voters.

Italy

Reform pledged by Christian Democrats

from Dalbert Hollenstein

School and university reform was an important part of the new government's programme. Between the governing Christian Democratic Party and the opposition (including the Communist Party) have kept the authority government in office for the past year by not voting on the crucial issues.

The aim of the reforms has been to work out a programme acceptable to both the Christian Democrats and the other political parties, especially the powerful Italian Communist Party. Essentially the reform will increase the number of universities and the number of places, but will not go as far as direct communist representation in the cabinet.

The Christian Democrats have undertaken to modify their traditional policies in five directions. They say they will strictly and calmly examine university institutions and their role in the development of universities.

This undertaking is in line with a recent government policy to create seven "new" universities, which will be managed by officials recognizing a university institution's role in the south. The Communist Party has also promised to support other left-wing parties, such as the Christian Democrats, in such new ventures through the state budget.

The Christian Democrats will redouble the value of university degrees. The degree will only allow a practitioner a particular profession, will no longer authorize a profession or career path, every field of work. It is hoped to equalize the value of those with a degree. The Communist Party has promised to support other left-wing parties, such as the Christian Democrats, in such new ventures through the state budget.

The Council's work cannot be measured on a cash till

Paul Webster, recently in Paris, looks at the British Council and the British Institute their new £700,000 home

11,000 inquiries a year in the Information section.

Although the British taxpayer pays for it, the Council is really there for the benefit of the French. But what do the French think of the British Council? Unfortunately, the Council does not know, because of the radically different ways in which the two countries carry out the same work. The French operate through a cultural department which is part of their embassy, while the British Council is almost entirely independent.

The Council's budget comes mostly from the Foreign and Commonwealth Office and the Ministry for Overseas Development (£57m for 1975-76) and has to be shared through 30 countries. The French system has a number of agencies undertaking similar work.

Mr. Anty stresses the role of the Council in promoting Britain in a developed nation like France. Many people have received council support in the past and have become household names. David Hockney was once promoted by the Council, and Henry Moore's forthcoming exhibition in the Louvre and other projects will not need as much help as they gave him in his early days.

The Council is helping to promote the Festival of Early Music which will run in July and August, and hopes to bring the Scottish Opera and Scottish Chamber Orchestra to the Aix summer festival. "That is what you might consider the compulsory and obligatory nature of the cultural relations which exist between developed countries," says Mr. Anty. "Some of the British Council's work is to do it even if the British Council didn't exist. The only question is whether you want it done well or badly and are, after all, a specialist agency with a great deal of experience."

The rest of the work done by the Council's six London-appointed and 23 locally-appointed staff is divided into five sections which include the arts, English language teaching, "twinnings", science and technology, and education.

Miss Mary Wane, the deputy director who was formerly responsible for higher education in London, is responsible for all twinnings, or for putting up links in London with other universities.

There are two different schemes for exchanging people and ideas between schools and universities—Academic Interchange and Academic Links. Councils which wish to make a specific journey while the Links scheme attempts to put colleges and departments in touch with each other.

Academic Interchange was pioneered by the British after the war but broke down in the 1960s because Britain was paying for it all. Britain's impending entry to the Common Market got it running again, even though the French still insist that the sending country—while not paying the expenses—must always have always swamped the council with requests for French academics to come over, but the French have been rather slow in reciprocating, says Miss Wane.

Canada

Report says large schools are more likely to be vandalized

from Michael Tross

Large schools are more likely to be heavily vandalized than those with fewer pupils, according to a report on vandalism compiled for the Ontario Board of Education (OBE). Insitutions with more than 1,000 students averaged well above \$5,500 in property damage during the 1975-76 academic year. Schools with under 1,000 pupils suffered an average of \$5,300 in vandalism-related losses.

The OBE, which has administrative control of 45,000 students, and which paid over \$200,000 to repair vandalism damage in 1975-76, was also the largest of book thefts were estimated within a year after the installation of security systems at libraries.

The report recommended that schools be allowed unrestricted access to photo-copying machines in as many libraries as possible since it was found, perhaps not surprisingly, that documents of books and magazines is generally related to class projects. Overall, \$75,000 worth of books are stolen each year from Ontario schools. 84 publicly maintained schools. The report notes that while schools built within the last five years seem to be constructed with sufficient vandal-resistant features, many older institutions need to be inspected in conjunction with crime prevention experts.

The report recommended that schools encourage responsible on-site groups to use the premises on weekends and during holidays; that principals try to persuade their teachers to call the police if anything suspicious was seen; that pupils be involved as much as possible with the day-to-day running of the school; and that records be kept on all school vandals.

The authors were less than optimistic on the subjects of vandalism and police patrols. The report mentioned an intensive effort in Los Angeles which attempted to force all school vandals to pay for their damages. The programme was deemed a failure as only 10 per cent of the estimated total were ever caught, and these only one in five ever repaid any money to the school system.

The Ottawa Police Department felt that patrols could be beneficial in certain cases, but that, in many situations, it becomes a game to defeat the authorities, creating a problem where none existed before.

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Aimez-vous Great Britain?

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United States

Controversy grows as college entrance test scores fall

from Angela Srent

CAMBRIDGE, MASS

Another season of college entrance examinations has just ended with a more controversy over the validity of objective testing to determine which students are admitted to university.

The two most widely taken—and widely criticized—tests are the Scholastic Aptitude Test (SAT) and the American College Testing programme (ACT). High school juniors and seniors take these tests, and they are often decisive in deciding who is admitted to what college.

Opponents question their accuracy in evaluating academic potential, and claim that they are culturally biased and discriminate against minorities. One of the most vocal critics of aptitude tests is the National Education Association, the nation's largest teacher organization.

In a report commissioned by the association and published in 1975, the NEA was urged to encourage the elimination of the use of group standardized intelligence tests to assess student potential. The NEA formally adopted this position last year.

The aptitude tests are also controversial because for more than a decade, scores have been falling. Former United States Commissioner of Education, Harold Howe, who heads the group analyzing the documents of many important institutions of personality, character and talent tests aren't worth a hoot, and were never intended to be.

Officials of the sponsoring colleges encourage examination boards across the country to include only a "measure of educational development" and not as a tool for determining or predicting a student's capacity to learn.

Australia

Teachers plan protests over government freeze on funds

from William Purvis

SYDNEY

Teachers and parents are protesting against a government decision to freeze on education funds.

The Australian Teachers Federation, representing some 126,000 teachers, organized the lunch-hour meetings in all states. Federation president, Mr. Milton Hunkin, urged the teachers to work with parent organisations and trade unions on a national protest.

Mr. Hunkin described the government's announcement of a freeze as a broken promise and an effective cut in real spending on education.

In some lunchtime meetings industrial action was discussed, but it was not widely supported. More popular were political opposition and the sending of a deputation to meet the Federal Minister for Education, Senator John Carrick.

Senator Carrick's financial guidelines, released on June 15, said that school spending in 1978 will be held at \$7.1 billion. Spokesmen

for the teachers say the current rate of inflation is effective cut of some 2 per cent.

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Mexico

Sociologist blames the teachers

from Emil Zubryn

MEXICO CITY

The main problem of Mexico's educational system is an irresponsible teaching profession, according to Vito Garcia, president of the Mexican College of Sociologists. He put responsibility at the root of the recurrent student conflicts that have plagued Mexican universities and schools.

"The commercialization of teaching activities in our country has produced a state of affairs where professors forget the principle objectives to be pursued in the education of youth," he said.

Garcia said that generations of Mexican students had remained disoriented and had not acquired the skills. Negotiating attitudes began with the primary grade child, and ended on until after they became graduates.

"If education in Mexico, on all levels could count on responsible elements within the teaching profession, it would play a very important role in the future of the country," Garcia said. He said nearly all Mexico's educational problems had their origins in the deficiencies of teachers. Now, with the increasing number of university teachers it is impossible to ask for the teachers to lack this quality.

United States

Violence blamed on cutbacks

from Thomas Cahill

NEW YORK

Violence has become a way of life at many high schools in this city, according to numerous reports from teachers, especially from schools in the poor areas of the city.

In the course of a day, teachers may be robbed, mistreated, or set on fire by students or intruders. In the 1974-75 school year, there were 6,817 reported incidents of violence in schools. In the 1975-76 school year, the figure rose to 10,896.

Though statistics are not complete for the current year, the incidence of reported violence is expected to be at least 15 per cent higher than last year.

This spiral of violence is most often attributed by teachers to financial cutbacks that have left schools poorly maintained and understaffed. This, they argue, has given students the impression that no one cares what happens to them.

In many schools the cafeterias and laboratories foster with garbage in locked classrooms, in case there are refused muggings in the halls. Alcohol and drugs are passed around. "Teachers are climbing the walls," said Albert Shankegen of the teachers' union. "It's catastrophic."

سورنا المصطفى

Library reading room in the new British cultural centre.

LETTERS

Film: it's far too easy for teachers

Sir,—How I agree with Mr Jeunisson's letter—"Films are to be seen" (June 17). In my experience it is all too usual for pupils to sit watching and listening—this being a course of action that rather defeats the purpose of visual education. The pupils would gain more by reading the sound script alone.

Why then do supposedly intelligent persons adopt this use of film media for their teaching? The reason is simple—it is easier: no lesson to prepare; no material to teach; no constructive homework to set. Some educational film producers do include a set of teaching notes for some of their films (for example, Unilever) but these are not always of practical value, since they do not allow for teacher interpretation—especially where the film is used for different age ranges and varying abilities.

The answer, of course, is that the number of staff must preview the film at least twice. It must be the one to make notes and from these produce his own teaching material. Teachers require greater education in the use of audio-visual material—perhaps Mr Jeunisson's organization could consider organizing courses or arranging for a representative to visit schools to demonstrate how film can be used to its full potential, the main message to impart being the supportive nature of films—used to reinforce new ideas and stimulate discussion and not used as the basic ration.

There is little doubt that the experience described by Mr Jeunisson is the rule rather than the exception and should be deeply regretted since it has a spin-off effect on those of us trying to use film media for constructive learning. NICHOLAS W. BAILEY, Head of Environmental Studies, Okehampton School and Community College, Mill Road, Okehampton.

Creative writing? It's appalling

Sir,—Put down any peevishness you detect in this letter to the fact that I write straight from marking 480 CSE Creative Writing scripts. The exercise is calculated to leave anybody feeling peeved—and utterly bewildered at the same time. How the astonished examiner asks himself—can any school concerned about its reputation, submit for open examination so many candidates who have not been properly prepared for such a test? To more than 25 per cent of the scripts the standard of English is so bad that, quite apart from marking some sort of educational certificate, it ought to be the

subject of allowed and confidential discussion between the candidates themselves and the teaching staff of their respective English departments. I do not mean that these Creative Writing scripts are poor; I mean that they are quite appalling. Many of the candidates have no idea of what is expected from them. Their work shows no attempt at planning or construction; the sentences do not hold together grammatically; the language used is inappropriate, casual and vague. Scripts—in their scores—are so badly spelt and punctuated as to be almost incomprehensible.

Now I know the arguments against the teaching of spelling; but when they result in manuscripts which look like writing in a foreign language, the argument (or the examiner) breaks down altogether. I am not talking about difficult or obscure words; I am talking about words with which the candidates have been familiar since babyhood; words like "any" (any), "next" (nexted), "stop" (stope), "busy" (bexy), "died" (dieleit). KEVIN MCCARROLL, 45 Tynor Abbey Road, Brighton, Sussex.

'Wild' statement on under-fives

Sir,—Mrs Leake is reported (June 10) as having told the NAET conference: "Walk into many reception classes in this country, and what do you find? Children with noise or often very limited speech, because one over talks to them... children unable to eat solid food because they had been fed on baby foods... children who could not walk because they had been kept in cots."

Could Mrs Leake back up this statement with evidence? Recent studies in various parts of Britain have all found about 5 per cent of five-year-olds speak so poorly that they are unable to make themselves understood by strangers, and about 1 per cent (overlapping with those) are using incomplete sentences.

These figures include retarded children and those with hearing loss, and there is little evidence that lack of stimulation is a major contributory factor. As for inability to walk at age five, this handicap is found only in association with gross brain damage or physical damage. Even if a child were kept in a cot, he would learn to walk round the cot.

Wild statements such as Mrs Leake's do no service to children, parents or teachers. BARBARA TIZARD, Thomas Chram Research Unit, 41 Brunswick Square, London WC1.



"I wonder what he does in real life?"

Stewart

Gone West, young man?

Sir,—Your issue of June 17 carried an Aristides item ("Lucks and Luncies") describing the experiences of George Phipson, head of mathematics at Woudberry Down School, London, who swapped jobs with a head of mathematics in a Bristol school for a week. He summed it up by saying: "I felt less tired at the end of a day in Bristol than at break in London." It can hardly be coincidence that this issue also carried an advertisement

requiring, as soon as possible, a head of the mathematics department at Wandberry Down School. Had Mr Phipson's headmaster considered what happened in the Garden of Eden once Adam tasted the forbidden fruit, he might have actively discouraged the swap in the first place. CHRISTOPHER J. COX, Head of Mathematics (in sloop), Hush Episcopi School, Langport, Somerset.

Let parents buy the pencil

Sir,—The news tells of plans to give parents the right to buy the pencil for their children. This is a very laudable aim, but it is not clear how it is to be achieved. The parents—not the teacher—must buy the pencil. But of what did this free choice consist? A building and a building educational or a building public house? Or a building spent on books, stationery, pencils, subsidised school, or indeed any of the aids that take for granted.

Each child provided his own even the poorest parents. I do not see how the parent can be asked to bear the burden of the equipment and additional costs were financed and even so the parent teacher association.

My return to this country only even in finding such a cold attitude in this correspondence with parents and children alike. I recall doing a mathematical exercise based on the assumption one child in each class lost each year. We closed the class, then the school, the town, and finally the country. And it is a reasonable estimate.

My heart goes out to the shire teachers and indeed those involved in this project. They can be proud of a sort of crisis proposed in education? Fewer staff, fewer extras like remedial facilities, other essentials. Why can we not learn from Australia and talk to its teachers already find it difficult obtaining positions compatible with their age, qualifications and experience without being labelled as second-class teachers who only get on because they are black.

Moreover, her implication that the school for her school having difficulty in getting black teachers is because most aspiring blacks cannot manage to pass O level English is

Black is special...

—May I be allowed a fairly brief return on the necessarily complex issue of black students being positively encouraged to enter professional training, particularly teaching?

Mr Sargent (Letters, June 17) expresses pious indignation at the very thought of a special category of students. We already have this, whether historically through the emergency training scheme after 1945, or as now in the case of sure students and others who do fully qualify in terms of minimum entry standards.

The reason for this is clear, and it is about very much more than "academic excellence" (if that is what O and A levels are to represent). Colleges and universities are not using the total entry option to the degree would or, in my opinion, could.

The fear of lowered academic standards is a perfectly legitimate one, but there is not, nor should be, a fixed notion that the academic quality of teachers is determined simply at the point of entry. (After all, we are content in this correspondence with students of higher than average central task is that of producing

another example of the kind of type-casting that blacks, in general, have to fight against. As a head teacher, she should know that pupil underachievement is often related to low expectations by the teacher. This is particularly true with black pupils. Another reason why many blacks fail is the lack of equal opportunity before and after entry. Maybe if more equally and more teachers were treated then this might encourage many young and usually suitably qualified blacks to enter the profession as well as keep those already in.

MARGARET MADEN, Headmistress, Islington Green School, Prebend Street, London N1.

...or a second-class label?

Sir,—Margaret Maden's patronizing letter (June 3) in which she "now understands why blacks fail" will, taken seriously, do much harm in inspiring blacks in their fight for equality of opportunity. As a black teacher I am amazed at her suggestion that concessions be made for black entrants in colleges of education. Many black teachers already find it difficult obtaining positions compatible with their age, qualifications and experience without being labelled as second-class teachers who only get on because they are black.

KEN HUNTER, Head of Science, Cullingwood School for Girls, York Grove, Queen's Road, Larkspur SE15.

Gospel according to Aristides

Sir,—The anonymous writer of the article on the Schools Council project: Music in the Secondary School Curriculum (Aristides, June 17) who described me as "one of the project's most enthusiastic pilot persons" seems to be falling into the same trap of many another "media person" in reducing, oversimplifying and labelling. Accordingly, the necessarily short piece of my music teaching seen in "Times Television's Our School and Herd Times" was seen by him/her as a "public manifestation" of "the sort of gospel the project preaches".

While very much in sympathy with the project's music-for-all philosophy, I interpret this, and have done for the past 10 years, far more widely than the music in that film might suggest. To me "creative music" answers one need in the classroom (and the techniques I developed to answer that need, as reported in the project's newsletter) but my teaching has always embraced a wider range of musical activities than this—folk groups, the performance of a Britten Cantata and so on—all in response to different needs, in my pupils and in myself.

What finally matters is the work of individual teachers in their classrooms. If the project has helped the dissemination of ideas, so much the better, but a great deal has been happening in the teaching of music which has nothing to do with any organized methodology. Your contributor's choice of language—"gospel", "gospel" in "marginalized" in describing the project and its members hardly gives individual teachers credit for any innovation at all.

PAULINE ADAMS, Head of Music, The Archbishop Michael Ransay School, Farnton Road, London SE5.

Handicaps of 'colour blind'

Sir,—It is undoubtedly true that a great many children are under-achieving at school for purely physical reasons—poor hearing or visual acuity, for example—and that often the physical basis for such under-achievement is undiscovered until it is too late either to correct the deficit or make good the educational loss.

There is, however, one visual defect which is much more common than long-sightedness or squint among children, and that is Daltonism (usually but incorrectly called colour blindness). Daltonism children are handicapped at school far more than most people realize, and although Daltonism is very easily diagnosed by those with specialist knowledge it is much less obvious to a teacher in a classroom than other visual defects. BARRY GRAY, 126 Lonsdale Drive, Rusham, East.

Facts behind forecasts, please

Sir,—In your issue of June 10, Auriel Stevens and Philip Vennings report interestingly on the problems caused by the falling birth rate. They state, presumably on the authority of the DES, that the DES is planning to issue a report on higher education numbers to be published this summer.

This is good news for all those interested in the future of higher education. It will be even better news if the DES publishes in full the basis on which it makes its calculations. Your article suggests that the DES will predict an increase in the staying on rate and that this information was not available to the Conference of University Administrators group. The DES was, however, kind enough

Calm before integration storm

Sir,—The 1976 law on the schooling of handicapped children stands upon democratically debilitated legs. (After a two and a half hour comprehensive debate in the Commons on July 1, 1976, Jack Ashley withdrew a motion on integration; the Lords effectively changed the law in less than an hour—with no vote.) All the more important that we strive to keep our sense of balance.

Many teachers would prefer your headline on another page "Calm before the storm" to the unsuitable "Buses and choirs greet Warnock report hints" (June 10). Then we might reflect on the very situation in which comments are made upon a report not yet published dealing with part of the Act which has yet to come into operation.

How refreshing to find one person, Mr James Loring, director of the Spastics Society, speaking of what is to the advantage of the handicapped child. Holding on to that idea first, we should have no truck with such a nebulous term as "current thinking" and the problem of semantics in "... handicapped children should be integrated wherever possible into ordinary schools".

Your reporter then wrote: "These views have been supported by the Government." The Government spokesman in the Lords (Baroness Stedman) on October 7, 1976, said: "I am sure it will be wrong to make such an important change in isolation from other changes in the provisions of the 1944 Act dealing with special education." She asked that the amendment be withdrawn. The sponsor refused.

We must now look forward to a fair and sensible implementation of Section 10 of the Education Act 1976. While consultations to this end are taking place, it is to be hoped that there will be no precipitate and pre-emptive change in policy by educational administrators regarding the balance of allocation of resources to ordinary schools and to special schools or the school placing of any handicapped child.

Referring to the last paragraph of your report, from time to time a student makes the discovery that one of the points about leaving is that what one "had always thought" was not necessarily so. To quote from Towards Integration—"A study of 100 blind and partially sighted children in ordinary schools (National Foundation for Educational Research): "At the beginning of this study we had not bargained on the full complexity of the issues we were to encounter in its course."

REG LUDINGTON, Deputy Head, John Ald School for partially sighted children, Cobbold Road, London, W12.

State of schools cycling

Sir,—You carried an article (£30,000 may be wheeled in to boost cycling", June 16) which reads as if it were an interview with me. This is definitely not the case and, furthermore, the article contains incorrect and misleading information.

It is simply not true that £30,000 has been offered to the English Schools Cycling Association—and there is no anonymous benefactor as stated. I only wish there were. There is such a demand for organized cycling among the pupils of our schools that we could usefully spend much more than this.

It is true that I have been exploring ways of expanding cycling activities within schools. Towards this end I have contacted several potential sponsors and have commenced preliminary negotiations with the cycle industry, cycle retailers and the British Cycling Bureau. All of the ideas I have had and which were discussed at the recent BSICA executive committee meeting, are at such an early stage that it was on oct of gross irre-responsibility on the part of

your informant to submit any article describing them as fact. The ESCA has no yet decided what it would do with any finance which might result from any negotiations. The idea of organizing a nationwide competition for novice riders was an idea of mine and it has yet to be discussed by the executive, let alone be accepted by any possible sponsor.

It was not responsible for the article you printed. The author of a document which I circulated for discussion at a recent executive committee meeting. He quite obviously did not attend this meeting and is assumed to have written a very hasty and premature conclusion. Indeed, nevertheless there is interest in our aims among cycle traders and manufacturers. The BSICA has recently formed an ad hoc committee to handle negotiations with the BCB and many schemes are being examined.

TAN CAMERON, North of England secretary, English Schools Cycling Association.

SPECIAL ANNOUNCEMENTS

SPECIAL ANNOUNCEMENT THE HEADMASTERS' ASSOCIATION THE ASSOCIATION OF HEAD MISTRESSES In the ballot held on 23 June 1977, members of the above Associations voted overwhelmingly to amalgamate as from 1 January 1978 and, subject to registration of the Instrument of Amalgamation by the Certification Officer, the new Association will be THE SECONDARY HEADS ASSOCIATION

UNITED KINGDOM READING ASSOCIATION STUDY CONFERENCE IMPLEMENTING THE BULLOCK REPORT 25-29 July, Avery Hill College, Eltham, London, SE9 2PQ Guest Speakers: Kenneth & Yetta Goodman Conference Banquet at the Café Royal, Regent St., W.1 Fees (all incl.): Residents £20; Non-residents £25 Places still available Write now to Conference Secretary (at College) or phone 01-830 0061 (Mrs Todd)

Will the curtain come down on drama schools?

Sir,—I am confident that I am fulfilling the wishes of the Earl of Harewood and his colleagues on the council of the Drama Centre, London, in thanking you for further airing their concern for the future of drama training in this country in your article of June 10. May I, however, attempt to correct certain misunderstandings or mistakes of omission.

Our original letter to The Times was occasioned by a survey of the attitudes of L.E.s to discretionary awards for drama, carried out in March. At that time it was clear that six councils had decided to virtually discontinue all such awards; seven others were doubtful as to whether to follow suit; three only had decided to discriminate against particular schools. The council of the centre felt that there was a real danger that, year by year, the cuts in educational spending were increasingly felt, the situation might easily deteriorate until it assumed critical proportions.

It was perfectly clear that the effects of these measures would be felt, except in a bare handful of instances, by all schools alike. Furthermore—and perhaps more importantly—was it appeared to us to be at stake was the right of the individual student to seek a training, regardless of where his home might be, and in the school of his own choosing. We felt that this had to be defended.

It is somewhat misleading to assume that it is the smaller, lesser known establishments, which have reason to fear. In most instances these have no greater difficulty in achieving their annual targets than their larger rivals. What disturbs us is that an absurd reading of your article might deduce that, were this the case, it would not perhaps constitute grounds for serious concern. Neither longevity nor size constitute criteria of any relevance

whichever in assessing the validity of the British system in training exists in its varied forms. Drama Centre, for example, largely the creation of three ordinary teachers of international repute, whose work together sends the major developments in the USA, over the past 50 years, the USA, why it enjoys an international reputation and has served as a model for one of the important state academies of Northern Europe and parts of the world. In a similar way the 15 Academy schools must always be associated in our minds with extraordinary achievements in Littlewood and the Theatre Workshop company, which sends their reason for being.

The contribution of the schools to the theatre in this country can be seen in the fact that of any other of those who extend them as at great, indeed greater, if their work were to be done in a more serious way, as even greater cause for concern, as the immense contribution of the signatories to Littlewood's letter to Equity and the president of London University, Sir Christopher Pettes, Principal, Drama Centre London Ltd, 176 Prince of Wales Road, NW5.

Letters for publication should be sent by Tuesday morning to the Editor, The Times Educational Supplement, 1, The Quadrant, London WC2N 2AU. They should be written on one side of the paper and should be clearly headed. The Editor reserves the right to cut or to omit any letter.

The bad old days

Peter Hebblethwaite rightly pointed out in "England raised its eyebrows" (June 17) that Kingsley's cartoon in The Water Babies was a moral ignorance rather than a society's exploitation of him.

The fact that the horrors of the sweeps and climbing boys are comparatively gentle by today's standards, which were a far more brutal time, as Pike has pointed out in contemporary reports in the Human Documents of the period Golden Age (Allen and Unwin, 1967).

The flesh must be hardened... will come back from work with their arms and knees streaming with blood... I have known two of his sweeps lose their lives by the sooty cancer... These diseases are caused entirely by "sleeping black".

The Illustrated LONDON NEWS JULY SILVER JUBILEE Souvenir Number Colour photographs of the procession, service of Thanksgiving and other Jubilee events On sale now - 50p

The bad old days

lives by the sooty cancer... These diseases are caused entirely by "sleeping black". Our modern children's authors portray nineteenth-century child exploitation without euphemism. Such is the case of the book (Susan Price), Die After (Peter Carter) and The Black Lupin (Peter Carter) and A Conde in the Night (Robert Swindells) are based on factual sources and concentrate on physical horrors rather than lack of Christian teaching.

In so doing, they intend to show the modern child how much better off now he or she is, a lesson which today's child is, but surprisingly, rather slow to grasp. JESSA A. KEMBALL-COOK, Librarian, Thomas Tallis School, Kidbrooke Park Road, London SE3.

Facts behind forecasts, please

to let us have some of its assumptions and you will find that this particular assumption is included as a "high projection" in Chart 4 on page 51 of our Interim report.

Our report did not attempt to predict full-time student numbers in universities but to set out some projections based on alternative methodologies. We have explained the bases of these different methods with care and I very much hope that the DES report, when it eventually appears, will do the same. M. L. SHATTOCK, Chairman, Committee of University Administrators' Group on Forecasting and University Expansion, Warwick University.

FOR YOUR 1978 SCHOOL JOURNEY CONTACT NST SCHOOL & GROUP TRAVEL SPECIALISTS NST OFFER GUARANTEED FIXED PRICES FOR 1978 NST give an unconditional guarantee that there will be positively NO increases whatsoever on prices quoted in our Continental brochure regardless of increases in cross-channel rates, fuel, hotel rates or any devaluation of the £. (Leaders know from the date of their first enquiry the firm price of their holiday.) CONTINENTAL TOURS by British Schoolcoach AUSTRIA-BELGIUM-DENMARK-FRANCE HOLLAND-GERMANY-ITALY-LUXEMBOURG NORWAY-SWITZERLAND are amongst the countries featured in our 1978 PROGRAMME UK TOURS by British Schoolcoach or by Rail NST are introducing a separate U.K. brochure, featuring over 30 attractive centres. Write in for a quotation and literature NST, FREEPOST, 1 ALL HALLOWS ROAD, BISPHAM, BLACKPOOL, FY2 0BR (no stamp required). Tel. 0253 52525 (8 lines)

COURSES

WHY NOT ATTEND AN ACE COURSE THIS SUMMER?

ORGANISING PRIMARY SCHOOLS IN THE EIGHTIES

Course Director: Dr E. Midwinter, who has worked and written extensively in the field of primary school organisation
Milton Keynes College of Education, Milton Keynes
27-29 July, 1977

This is a course aimed chiefly at Deputy Heads and Senior Staff in Infant and Junior schools who may be expecting increased responsibilities and promotion in the coming years. The course will look carefully at the overall objectives of the primary school and attempt to align this with the flexible and efficient management of what are often limited resources of personnel, accommodation and materials. It will be a practical exercise in the sense of offering realistic suggestions about meeting the demands likely to be made on primary schools over the next decade.
There will be group sessions led by a team of experienced tutors. (C77/5)

TIMETABLING IN THE SECONDARY SCHOOL

Course Director: Nell L. Ransom, Rhinod Aldworth School, Basingstoke, Hampshire

Churchill College, Cambridge 5-8 August, 1977

Senior staff from secondary schools, whether beginners or with some experience of timetabling, will find their knowledge extended through attending this course, which is being offered for the fourth time. Study groups will use simulated material to learn the planning/construction stages, the philosophies and the inter-relationship between the timetable, curriculum and school organisation. Lectures will cover current and future trends of timetabling. (C77/6)

NEW COURSE

PASTORAL CARE AND CURRICULUM IN SECONDARY SCHOOLS

Course Director: John Bull, Devon County Advisor for Curriculum and In-Service Education

Churchill College, Cambridge 9-12 August, 1977

Pastoral Care plays a very important part in our schooling today. This course is designed for staff, including heads who hold top end middle management posts in secondary or middle schools with some responsibility for pastoral care, and those aspiring to such posts.

Lectures include:
Caring in Action
A Curriculum for the Disenfranchised
Caring and Demanding Parents and Schools
Theory into Practice
A Counsellor's View
Pastoral Care Systems and Units for Disruptive Pupils
Apart from lectures, the course offers group sessions as well as personal tutorials with experienced tutors. (C77/7)

LANGUAGE AND READING: IMPLEMENTING BULLOCK

Course Director: Asher Cashdan, Head of the Department of Communication Studies, Sheffield Hallam Polytechnic

Milton Keynes College of Education, Milton Keynes
24-27 August, 1977

This will be an intensive workshop course, in which significant aspects of the Bullock Report's recommendations will be analysed and applied to classroom practice. Guest lecturers will include Professor David Crystal and Russell Hoban. Each course member will select one of the six workshop areas listed below and will spend most of their time in Milton Keynes exploring it in detail.

The workshop areas are:
English in the Secondary School
Language across the Curriculum
Comprehension Study Skills in the Middle School
Children's literature and learning to read
The reading process in the Primary years
Teaching Assessment and Record Keeping (with options covering secondary, primary and remedial). (C77/8)

Full details and application form for all the above residential courses can be obtained from The Courses Department, Advisory Centre for Education, 92 Trumpington Street, Cambridge. Tel.: (0223) 51466.

University of Wales



DEGREE OF M ED

with

TEACHING OF ENGLISH AS A FOREIGN LANGUAGE

(Jointly with University College, Cardiff)

Applications are invited from graduates with appropriate teaching qualifications and/or experience for admission in October, 1977, to a one-year or two-year course leading to the above-mentioned award of the University of Wales.

The course will include the Teaching of English as a Foreign Language (phonetics, linguistics, methodology) and a topic in Education (the latter studied at UCC, Cardiff). Candidates will take a written examination, and submit a dissertation.

Further details may be obtained from the Academic Registrar, UW19T, Cardiff, CF1 3NU.

Sport New centre to nurture tennis stars

by Stanley Levenson

Two students have turned down sports scholarships in the United States for the chance of a place at Middlesex Polytechnic. The lure is a new high level tennis coaching centre just opened by Denis Howell, Minister for Sport, at the polytechnic's Bouds Green site in North London.

The students, unnamed, will be joined by six others in the tennis squad, the first scheme of its kind at any higher education institute in the country.

To qualify for the squad, the students will have to meet two requirements—acceptance on academic grounds by the polytechnic and at least county junior standard in tennis. Those who satisfy the educational and sporting standards will be expected to put in at least nine hours training and playing each week. Theoretical aspects of tennis, physical conditioning, weight training, video and audio equipment and medical monitoring are also part of the deal.

Bouds Green's new sports hall is particularly well suited for this with its four indoor courts, much admired by Mark Cox, Britain's leading male player, who was present at the opening ceremony.

Elsewhere, Middlesex Polytechnic has another indoor court, nine hard courts and three grass ones. Eventually the tennis squad will be 20-strong.

Mr John Watson, a senior lecturer in physical education at the



An eager-looking Minister of Sport, racket in hand. Partner Mark Cox watches.

polytechnic, a professional tennis coach and former Durham county player with Wimbledon experience, is to be the tennis centre's coordinator.

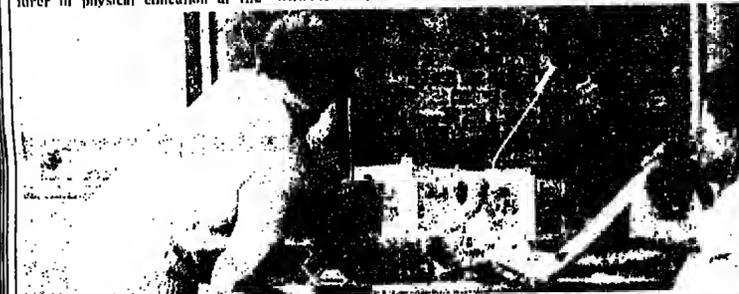
The scheme is in response to a call from Mr Howell for the higher educational world to play a bigger role in helping talented sportsmen and women. It steers between the American and East European methods of promoting sporting talent, which is what Mr Howell is after.

Middlesex Polytechnic itself emphasises that nobody will be accepted as a member of the squad without first being accepted for

one of its normal courses; it will not offer separate courses in sport. However, the polytechnic is not of its way to try to encourage young players to enter advertising the high level centre in a number of advertisements.

Mr Howell hoped that this would be only one of some 30 "centres of excellence" which he hopes to develop this year at colleges and universities.

On Sunday, July 10, the Bouds Green Sports Hall, which cost many other sports, is to be opened to the public to help it free of charge.



The centre has medical equipment which can be used to monitor truck rate. Above, a student uses a truck to check respiration.

Newcomer takes on pick of Europe

Karon Maney, who took up competitive canoeing only 15 months ago, was the big success in the British team at the International Junior regatta in Duchum, West Germany.

She paddled her way into three finals—singles, doubles and fours—gaining a third place in the K4 event, a remarkable achievement against experienced top class canoeists from the continent and in races which attracted a large entry.

Miss Maney began canoeing while in the fifth form at Buntingford College, Cambridgeshire, where Mr Colin Gray, one of the leading figures in adult and schools canoeing, is head of school.

At the school regatta, Miss Maney, who came seventh, out of 19 in the boys K1.

Meanwhile, over the same week-end, at the Holmport regatta, a course at Nottingham, youngsters from the New Worcestershire village of Fladbury were taking most of the honours at the British Schools Canoeing Association championships. Fladbury had 50 competitors at Nottingham, probably all the school-age youngsters in the village.

Among the events they dominated were the 15-17 year K2 with first and second place and the K1 in the same age range.

Mr Gray says one of the clear trends at the schools regatta was the domination by canoe clubs, as opposed to boys and girls who usually canoe training is at school. This suggests that most schools are not yet equipped to handle expertly sports such as canoeing which are outside the usual football, rugby, cricket, athletics orbit.

Volleyball a rising sport



Volleyball, which revealed itself as a stunning and popular sport at the Montreal Olympics last year, gets another boost with the international tournament at Crystal Palace in September.

Teams from England, Denmark and Switzerland will be joined by the full national side from Mexico in representation for the British Columbia Volleyball Cup.

The tournament is September 25 and there are reduced rates for school bookings—down from £1.50 to £1.00 per person, including transport to the venue at Crystal Palace.

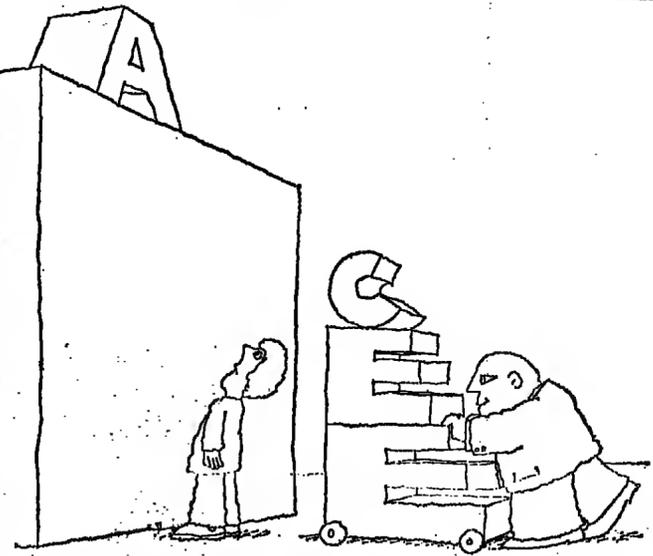
Volleyball is the second fastest growing sport in the world, according to the International Volleyball Association. The sport is being introduced into schools and universities. The national association has received £10,000 from the Royal Yachting Association, to build a dinghy design wins £500 for poly student.

David Mills, a 21-year-old design student at Lanchester Polytechnic, Coventry, has won a £500 prize for designing a dual purpose dinghy which can also be used by yachtsmen as a life raft in emergencies.

His design incorporates two full length packets beneath the vessel which can be lowered in emergencies. They fill with water and act as dragues, slowing the boat's drift and stabilising it. The only technical snag stands a chance of receiving £1,000 from the Royal Yachting Association, to build a dinghy.

Waiting for CEE

Is the Certificate of Extended Education the real answer to the needs of 'the new sixth'?
Paul Norgate writes on behalf of a group of English teachers who believe it offers a major opportunity for curriculum development.



CEE lives. It is around in a fairly healthy form, despite Shirley Williams' hesitations. Many Mode 3s are thriving, and regional boards are pressing on with Mode 1 schemes. One hears that—mirabile dicta—even university boards were showing interest, before the DES wet the blanket.

In the great debate, however, CEE may appear more in the role of "yet another examination", an abortive attempt to introduce redundancy certification into territory where A level already dominates, an attempt, even, to empire-build by the regional examination boards. Some of this sort of thing may seem to be borne out when the rather callow newcomers tread the boards under unflattering lights, and alongside the seasoned veterans. But before the novice is hurried to the wings, do we hear some favourable reactions among the audience to CEE?

Many teachers have welcomed CEE, and have worked very successfully with it in their sixth forms—and not merely as a means to another certificate and. It has been our experience that CEE has grown to meet certain definite needs in the "new sixth", though teachers may have tended to hide the CEE light under a bushel. A few sparks have brightened the educational correspondence columns, but the tinder has not fully caught.

We would like to carry a torch for CEE by experience in our own subject, English; it would be interesting to see what reflections are thrown back from other subject areas. Certainly the work of the Schools Council project, English 16-19, with whom we have been cooperating, suggests that CEE has provided teachers up and down the country with a framework for a great deal of extremely worthwhile work in the sixth form.

In recent years CEE has offered virtually the only major opportunity for curriculum development at 17-plus or a time when the nature of the sixth form has been changing appreciably. For a variety of reasons—not all related to schools themselves—comprehensive sixth forms without academic A level studies do not exist, or to whom A levels do not represent the kind of work they wish to do.

These students are not only those with CSE passes and certainly not only those with passes at O level. Many of them would welcome one year in the sixth, rather than a re-working of what they see as fifth-form examinations. Others are attracted by the prospect of a fifth-form course, but need a definite step into A level.

When A level is the only sixth-form qualification available it is all too easy to see a vicious circle to become established. The A level essay-type answer, once it is the final test of competence, comes to dominate the lives of possible students for whom it is the least desirable mode of learning. And at the time as students' growing maturity and awareness are leading them to consider a wider range of more complex questions, their responses are to be channelled into a single traditional mode, stylized.

As the Schools Council project team point out in their recent booklet *Opportunities for Writing at 17-plus*, the A level essay answer may of its best be critical, evaluative and persuasive—but there is little evidence of any carry-over of such linguistic expertise.

CEE has opened up this vicious circle at a number of points. A uniquely sixth-form course, and sixth-form qualification—recognized as such by teachers and students, and open for recognition by employers and others—it has proved flexible enough to meet many of the varied needs of the new sixth. It provides a self-contained, one-year course for students who want only one year in the sixth. It can also provide a breathing space before able students take their final decisions about A level.

By intelligent planning, it can be incorporated as a common core foundation course for all first-year sixth-formers, whether heading for A level or not. This means also that mixed-ability groups can be formed in the first year sixth in some cases a first opportunity for the less-able and more academically gifted to work side-by-side—often with considerable social and academic advantages in both groups.

This unique flexibility of CEE within the sixth-form curriculum derives largely from its regional roots. As a locally-based examination, like CSE, it enables schools or groups of schools to put forward syllabuses at Mode 3 proposal. Many too, of the Mode 1 syllabuses now offered by regional boards have obviously grown directly out of the best and most successful practice of teachers operating Mode 3s.

The result is courses in which the desired curriculum determines the system of examining, and not vice-versa. Syllabuses can be open-ended, and revised in line with the needs and interests of the particular groups of students they are designed to serve, or to connect with the world outside the school. All this tends to lower the tensions which often exist between examinations and the curriculum, to the disadvantage of both.

Assessment in CEE courses offers the opportunity for a much clearer profile of students' aptitudes and abilities than does a one-off examination. An English course which finds students working in the field communally and compiling a dossier of their misadventures and experiences; writing a biography of a member of their family; or local personality; introducing group of the peers—through discussion, maybe, or by dramatized or taped presentation, or in written form; perhaps making a detailed study of some aspect of literature that they themselves have selected; such a course has clear advantages in developing students' confidence in themselves, in their social skills and in their effectiveness as writers and communicators—in their knowledge and experiences as the touchstone for their own utterances.

How many opportunities lie in this kind of work, more than in rehearsing the honed forms of a convention such as the literary-critical essay?

There undoubtedly exists a need for a limited-objective, one-year sixth-form qualification. But CEE has done far more than meet this specific need: it has provided the unifying factor in a whole series of fruitful developments in sixth-form teaching. Coursework assessment and mixed-ability teaching have provoked healthy controversy independently of CEE. But only CEE has offered the opportunity to integrate them fully into sixth-form studies.

The advantages derived in recent years from work on CEE syllabuses must not be thrown away. Under whatever name they are marshalled, they should become the keystones on which to build the new sixth. The eventual decision to retain, restrict or abolish CEE will obviously affect, for better or worse, all those who already hold the qualification. It seems unfortunate, to say the least, that CEE, operating successfully though as yet on a relatively small scale, may fall victim to the confusion of the whole examination system.

Paul Norgate is a member of the 16-19 working party of the Birmingham/Hoveford-Worcester branches of the National Association for the Teaching of English. He is also head of English at Walsley Hills High School, Birmingham. The booklets *English in the New Sixth* (20p) and *Opportunities for Writing at 17-plus* (25p), are available from the Schools' Council Project "English 16-19", Bretton Hall College, Wakefield WF4 4LG.

COURSES

SPECIFIC READING DISABILITY
Course: Starting 26th Sept, 1977
8-7 p.m.
Ten weekly sessions on Monday evenings, 7.30-8.30 p.m. in the evening. Also available as a day course. Also available as a day course. Also available as a day course.

Blaming the victim?

Gus John explores some of the issues raised by the National Association of Youth Clubs project 'Youth and Race in the Inner City'.

In education the Hunt report, immigrants and the youth service, was seen as offering guidelines and objectives for education and the youth service in relation to young immigrants. Section 2 of the 1966 Local Government Act empowered local authorities to claim grant aid, if they were required to employ extra staff as a result of substantial numbers of immigrants from the Commonwealth within their areas whose language or customs differed from those of the community. The youth service was also to benefit by this.

The argument that when those "immigrants" born in this country were socialized into our norms and values, went in our schools and spoke our language, they would not have the problems of adjustment which made it so difficult for their parents' generation, still seemed sensible to many.

The NAYC therefore attracted Government funds to investigate multi-racial youth work. Attention was to be given in youth clubs that were successfully racially mixed and to reasons for their success as perceived by the youth workers involved. Such evidence of good practice was to be documented and made available in areas where there was a tendency for clubs and youth projects to become all-black or all-white.



The concern of the youth service with black young people must be seen in historical perspective. The position of these young people in our inner cities and industrial towns has been a source of concern for policy makers and providers of public services for some time. The black population and community groups within it have also been concerned, for vastly different reasons. Increasingly, they see black young people as a group under attack, defined in a certain way by white society and race relations experts, virtually compelled to have a marginal existence within this society, and not lacking in attention from control agencies.

It is not by accident that young blacks have been identified and singled out for such attention. It is an inevitable result of the way in which black people came to be defined as "a problem", and of subsequent policies and practices. A preoccupation with "the problem of immigration", "the problem of coloured immigrants", "the problem of second-generation immigrants", "the problem of coloured schoolleavers", is about one and the same thing: the failure of the white majority to accept that racism is endemic to its political and cultural heritage, and that there is a relationship between black people as a racial minority and Britain's political economy.

Much race relations work has been underpinned by an ideology which defines black people as the problem. Benign and liberal attempts, and even the best intentions, have been made to iron out or compensate for the deficiencies of the black "strangers", in order that they might function more normally within British society. There is evidence that this ideology will ensure that "stranger" and "alien" status will be conferred on British-born blacks, even to the nth generation.

In 1973 the National Association of Youth Clubs and the youth department at the Community Relations Commission drew up a proposal for an action-research project in multi-racial youth work. This came at a time when pundits were making impressionable pleas for Britain to accept that it was a multi-racial society, and for that to be reflected in the nature and composition of youth work, social work, education, the church, the police and the army.

While this was of considerable interest to those concerned about the apparent segregation of black and white young people within the youth service age range 14 to 21, it was seen by many youth workers as of little consequence, and a diversion from the issues facing young people, black and white, in inner city areas.

From 1974 to 1976 the project operated in 16 cities and towns in the North-West, Midlands and the South. An assessment was made of the use by black young people of the youth service and of the definitions of their position which youth workers employed as a basis for action. Young people's definitions of themselves, the youth service in relation to themselves, and the use they made of alternative services in the community, including their self-initiated schemes, were documented.

By mid-1975 it was clear that there was a tendency among youth service officials and white youth workers to assume black young people were no different from other young people. Even when some defined them as deviant their deviance was explained by theories about the urban poor, inter-generational conflict, and the strain for children of a migrant population of finding their place in the receiving society.

It appeared that youth service administrators and youth workers tended to be resigned to the fact that some youth clubs had become all-black, although they saw this as undesirable. For the most part they viewed such clubs as a necessary consequence of the cultural preferences of whites and blacks.

"The blacks like reggae and soul music and they want their music to dominate." "The white boys don't like the way the black boys treat the white girls, and the way the white girls fuss over the black boys." "The whites find their music, their dress, their talk and the way they dance very threatening because it excludes them, and they resent that."

It is a short step from this to the suggestion that more black youth leaders ought to be trained to work with these young blacks. Black youth workers are presumed to understand their customs and way of life, and it would be considered more acceptable for them to impose discipline than for white youth leaders to do so.

Most black youth workers accepted, no less than their white colleagues, the

claims of the youth service to be about social education, and providing opportunities for adolescents to learn social skills. Few black youth workers seemed to understand that the only way the youth service, given its historical function, could accommodate the assertion of their identity by young blacks, was by controlling it. Here, as in education, providers are more concerned to make people fit the service than to enable services to be responsive to the needs and potentialities of those concerned.

While rejecting the original remit of the multi-racial project, youth workers were concerned to list a series of demands being made on them by black young people which had led them to re-evaluate their role. As one put it: "I felt I needed to have my job description rewritten, and a whole set of resources put at my disposal to make my role viable."

Of more concern than the harmonious mixing of black and white youths were the many areas of social need in which young people felt it was the youth workers' duty to get involved. These included help with job-finding, assistance with preparing for interviews, fares to the untempting place to try to find work; problems at school, frequently centred around suspensions, expulsions, and not being allowed to sit GCSEs; homelessness—particularly among those whose families were rehoused on new estates miles away from the city, but who continued to spend their leisure time (that is, all their time) in their former surroundings; and the problem of police harassment of young black people.

Arising from the latter were constant requests for help with legal advice, court proceedings, and assistance in persuading parents to attend court, reminding up other young people as witnesses, and accompanying them to solicitors' offices.

There is nothing extraordinary about these areas of involvement. They are features of the daily lives of inner-city youth workers, particularly those working with "unreached" youth who feel youth clubs have nothing to offer them. But here the similarity ends.

While many youth workers use traditional casework methods in response to such problems, and see individual counselling and teaching the individual as a suitable response, black young people view their day-to-day experiences as expressions of group oppression. What is important is not that poor white youths in the same areas experience the same problems, but that the subjective experience of black youths as being racially oppressed is rooted in their awareness of

the structure of inequalities in race and black people in society.

Their experience of education, alien and second-class status, black people, and the way the press depicts them and their parents as a group, more of whom ought not to be allowed near British shores; their belief that the activities of the school, to be congruent with the labour market expectations of them, and with the wishes of the police when they refuse to show labour force, and refuse to collude with the schools—all point to the fact that, however much one quantifies disadvantage, one cannot obscure facts of racial oppression.

The youth service, the social services, the police and the courts are seen with a generation of black people who defined as being neither economically desirable nor socially acceptable, but whom England is home, however reluctant the "back to Africa" philosophy might be among them.

Black young people see youth clubs as clubs in the traditional sense, more as territory within which they can express cultural preferences and political options, establish an identity collective as young blacks, and resist the re-education by the state. The ethos of the youth club, voluntary or statutory, is that of some black self-help projects funded by urban aid or the Community Relations Commission.

After the original remit of the multi-racial project was abandoned, a programme of research and development was devised, in consultation with young people and youth and community workers, to establish the role of the youth service in relation to black young people and provide youth and community workers with information to assist their action. This work, begun in April, 1976, is being done in 12 places.

Assessing policy within the youth service on any issue is a hazardous exercise. The service is what organizations, unions and interest groups make it, riddled with political ambivalence, both statutory and voluntary bodies, and a benign concern for the welfare of the nation's youth.

Some local authorities and voluntary organizations have only recently accepted the fact that there are black people in their midst. A cynical



their involvement in work with black young people would be that they wish to be seen to have done their bit in race relations. What they do is seen as special, and usually separate from the mainstream of normal activities.

There are those in central and local government who argue that an attack on racial disadvantage ought to be part of a general attack on urban deprivation. Here youth work with black young people finds itself with real problems.

The objectives of black self-help youth projects are an less politically unambiguous and ill-defined than those of the youth service generally. One reason for this is that such projects are working with policies which are no more acceptable than the definitions of the position of black people that give rise to them.

Policies were formulated which focused attention on black people, their language, their background and their culture, rather than on institutional racism. Having placed the blame on the "victim", social policy responses were couched predominantly in welfare terms, even allowing for the political objectives of anti-discrimination legislation.

The period 1965-71 saw the growth of a number of militant black organizations concerned to expose the racism of the system and to organize black people to resist its oppression. The philosophy of negritude and of black power, and the development of the non-Africanist movement were evidence of the internationalization of the black struggle. They helped to clarify for Britain's black population the relationship between them and the white metropolis should be, and how they should react to their experience of white power.

However, by 1973 that brand of militancy had been all but accommodated by the system, or encouraged to fade away. The 1968 Race Relations Act heralded the formation of the Community Relations Commission. In May of that year Harold Wilson announced the Urban Programme. The change in the black response, the transition from protest to the activities of the Community Relations Commission and the existence of urban

A report in 1976 entitled Local government approaches to urban deprivation studies, Birmingham University, quotes officials from local government departments and other agencies as saying that

the problems of the coloured communities were not being given proper consideration by local or central government. Some officials felt this failure was for political reasons.

The Community Relations Commission and its self-help scheme, together with the Urban Programme, has given many local government departments an opportunity to place their responsibilities to black people into other administrative pigeon-holes. On the one hand, they say the Urban Programme was not intended specifically for black people; on the other, they see it as too risky politically assigned to cater for black people. Nevertheless, they retain the power to decide whether to contribute 25 per cent to the cost of any project seeking urban aid.

Given the general lack of concern for black people in local authority areas, the pattern has emerged within the black population of competing groups identifying areas of social need and scrambling for authority for their urban aid applications. Local town halls astutely play one group against the other, suggesting that, regardless of the size of the black population, only one group should claim to represent the needs of the black community at any one time. The amount of organized disruption this has resulted in among black people should not be underestimated. It is often accompanied by the observation that "they're always fighting amongst themselves".

And for what? As the information and research officer at the Runnymede Trust has observed: "The Urban Programme was not intended as a race programme, although it was hoped that the black population living in deprived inner city areas would, like the other inhabitants, benefit from its provisions. Some funds have been allocated to specifically black projects, but these remain small. The only phases in which significant amounts of money were given to black self-help projects were phases 7, 11, 12 and 14. A Runnymede Trust research worker has calculated that the total given to such projects during those phases was £708,036. This represents approximately 5 per cent of the total of about £13,825,000 allocated to voluntary projects."

One does not need to emphasize how economically active black people are within the British economy, nor how great their contribution is to rates and local ser-

Far left: "Black youth is bitter and angry", Prince Charles was told during his celebrated intervention between police and demonstrators in Lewisham last month. Left: A Brixton arts centre, one of the many urban projects catering for young black people.

they see as protecting society from the blacks.

Witness the media, police and courts' reactions to the issue of mugging. Nothing is better destined to stir emotions than headlines about young blacks on the rampage, mugging citizens going about their lawful business. The concern with mugging has encouraged the police to engage in widespread abuses of young black people, under the guise of maintaining law and order and cracking down on mugging. These abuses occur particularly in the context of arrests under the "sus" laws, and they occur to a pattern in London and the provinces.

Police attention is focused particularly on black young people in shopping precincts and in commercial areas generally. Shirley Summerskill, in a written answer to a question on arrests under the "sus" laws, stated on March 3, 1977: "In 1976 2,112 persons were arrested in the Metropolitan Police district for loitering with intent to commit an offence. Although separate figures were not available, 887 were recorded as being of an appearance which included West Indians and black Africans. In 1975, the latest year for which information was available, 1,746 persons were proceeded against for this offence at magistrates' courts in the Metropolitan Police district. No breakdown of these figures by appearance or ethnic origin was available."

Young black people experience daily the opportunities this piece of legislation gives the police. In Manchester and in London youth workers have been involved in cases where groups of young people were arrested on "sus" charges, heading up not forced to "apologise" on other young people allegedly involved in handbag snatching and pickpocketing.

It is easy for such matters to go unnoticed except for the protestations of the black community, since the dominant view within society is that the police have a difficult enough job in their fight against crime, and should therefore be supported rather than criticized.

When the police argue that the adult black population is on the whole low-achieving and hard-working, and that the youths are constituting more and more of a criminal fringe or sub-culture, they are trying to divert attention from the fact that the situation of black young people and of their parents is essentially the same.

Black youths are suffering with and on behalf of all black people. Their parents cannot afford to accept the police or society's definition of the youth as a deviant group, since this gives the respectable black community a bad name. In this generation of black youths, predominantly British-born, the adult black population have their best allies.

Similarly, they should show themselves to be allies of the black youths. It is only through an appreciation of the relationship between their position as a racial group, and their class position in British society, and an acknowledgement of their power as an economically active labour force, that meaningful responses by the black population can come about.

For their part, it is essential that the white working class attend more consciously to the meaning of its own historical struggles. The race factor will otherwise undoubtedly continue to divert attention from the real issues, and engender a false consciousness among both whites and blacks for generations to come.

The current objectives of the youth service, and the objectives of piecemeal programmes, do not bear much relevance to the realities of this situation.

Gus John is Director of the National Association of Youth Clubs Action Research Project 'Youth and Race in the Inner City'.

22 Books/Education/Technology

Paperbacks Cradle to class

Joan Tamburrini

The Origin of Intelligence in the Child, by Jean Piaget. Penguin £1.95. 14 08 0928 7. The Moral Judgment of the Child, by Jean Piaget. Penguin £1.95. 14 08 0927 9. Moral Development: A Guide to Piaget and Kohlberg, by Ronald Duska and Mariellen Whelan. Gill and Macmillan £1.95. 7171 0834 1. Educational Theory: An Introduction, by T. W. Moore. Routledge and Kegan Paul £1.25. 7100 8463 3. Instead of Education, by John Holt. Penguin 80p. 14 02 1999 4. In recent years the use of videotape analysis has contributed to a sophisticated methodology for the study of infant behaviour. Piaget's early studies reported in The Origin of Intelligence in the Child are naturalistic but nonetheless seminal in the basis they have provided for more recent work. In this book Piaget describes with vivid examples the development of intelligence during the period from birth to about 18 months. The period is important in two respects. First, it is the basis on which conceptual intelligence is constructed. Second, it exemplifies mechanisms which Piaget proposes are invariant functions of intelligence. The book is, therefore, essential reading for any student attempting to come to grips with Piaget's theory of intellectual development. The Moral Judgment of the Child is another equally vital work. It begins with a study of the development of children's respect for rules as revealed in their games with marbles, and follows with an investigation of their moral reasoning. In particular, Piaget shows that the young child is a moral realist for whom all rules exist in their own right and independently of him. It requires the processes of reason, confrontation with adult authority and social cooperation for this child to begin to reach a stage of moral autonomy. Kohlberg's more recent work on the development of moral judgment has complemented and expanded on Piaget's study. His investigations, like Piaget's, have been concerned with the reasons given for decisions on whether an action is right or wrong. These reasons are distinguished in terms of different levels of which Kohlberg derives six, an elaboration of Piaget's three basic stages. Moral Development: A Guide to Piaget and Kohlberg presents a succinct description of both theories, and is a most useful introductory text. To undertake a study of the work of Piaget and Kohlberg is to take a step in the direction of acquiring an understanding of modern educational theory. In Educational Theory: An Introduction, T. W. Moore successfully argues that a grasp of educational theory is an important part of a teacher's professional equipment. As well as an acquaintance with those aspects of psychological and sociological theory relevant to educational practice it should include, he convincingly shows, an understanding of the social ideas to do with atoms and the nature of knowledge. Moore includes a discussion of influential educational thinkers of the past whom he argues still have something to offer to teachers. This book should become a basic text in schools and colleges of education. Educational theory is implicitly rejected in John Holt's thesis in Instead of Education which, in contrast to Moore's scholarly work, is extremely simplistic. Holt argues that schools are necessarily authoritarian and destroy curiosity, energy and resourcefulness. He suggests that most communities have alternative resources to schools in the form of human excellence. A basic flaw in his argument is the assumption that all children are underachievers in a particular subject area a sufficient resource for the alternative education. Doubtless many schools fail as miserably as Holt suggests. Often they do so because teachers have achieved excellence in their own fields of study but have not equaled the values and understanding arising from the grasp of educational theory which Moore argues is so essential.

Children's literature Gentle variations on reality

Audrey Laski on paperbacks

Another batch of excellent paperbacks, reprinting studies first published as early as 1904 or as recently as 1974, puts all kinds of pleasures within young readers' reach. Some are the pleasures of reality, or a gentle variation on it. For the youngest readers, Puffin's Busy Readers, My Uncle Charlie (Moggy Jarvis 50p) and I Am a Hero (by Sylvia Fair (Puffin 50p)) do not afford to travel some of the same ground as Sir Walter Scott in The Tolliver. The other realistic adventures into the past go no further back than our own century. The Professionals, by John Harris (Puffin 45p), is a kind of schoolboy's Grande Illusion, capturing well the mixture of blundering and heroics of the First World War but ending with a rather unlikely, though exciting, escape. This book never quite comes to terms with the price that may have to be paid; The Peppercorn Pie, by Nina Bayden (Puffin 50p) faces things more squarely, though the death which really brings the notion of mortality home to the heroine is that of the pet pig which has grown big enough to be bacon; it is hard to define what is so good about this story of growth and change, but the reader will readily sense it. The right reader will respond, too, to both past and near-present in Alison Uttley's A Traveller in Time (Puffin 45p), which develops slowly and richly its heroine's life in two worlds, one of which is the 18th-century household in the years before the final, fatal plot in Geneva. Mary, Queen of Scots. An even stranger interweaving of past and present comes from Mrs. Disney that she owns the liberties of my children, whose owners' imaginations can give them life, in the markedly original The Twelve and the Giant, by Pauline Clark (Puffin 60p). Again, past legends break through into the present in An Evening at

23 Books/Technical Subjects

Design for drawing

Ted Heasman

Design Drawing Two, by John Rolfe. Hodder and Stoughton 95p. 340 19258 5. Engineering Drawing and Construction, by L. C. Mott. Oxford University Press £3.95. 19 859114 4. Engineering Drawing with Worked Examples, by F. Pickup and M. A. Parker. Hutchinson £2.25. 09 126451 0. Technical Drawing Comprehension Exercises (second edition), by J. K. Wilkinson. Cassell 80p. 304 29653 8. Technical Drawing Splinters, by W. F. Malcolm and P. K. Stoddart. Oliver and Boyd £7.00 plus VAT. 05 00295 7. Introduction to Engineering Design, by N. L. Svensson. Pitman £2.50. 273 00717 3. I feel as if I am describing old friends in reviewing these books for three of them are revised editions and one is a "follow-on". John Rolfe in Design Drawing Two follows his first successful volume with another collection of drawings based on the everyday world. The author may be forgiven the occasional literary he takes with a graphic communication motif for the sake of clarity; in book two he develops this approach still further. He provides good examples using the locus, ellipse, parabola, spiral, intersection and development. At the same time he gives every opportunity for students to become theoretically aware of the world around them and scope to develop their own ideas and interests. Least successful, perhaps, are the stylized drawings which need to be drawn on grid paper. This is a valid technique but these particular examples appear too late in the book, following on as they do from so many good detailed drawings. Anyone looking for constructions and methods will not find them in Design Drawing Two but both pursuing for themselves a deeper concept of the complexities of electronic circuits and components he clearly finds fascinating. One is pleased to commend such a splendid and novel introductory textbook. The continuous prolific development of electronic technology has become a dynamic feature of our scientific age. There are now so many growing applications for electronic devices that it is quite a problem for students and others to find comprehensive up-to-date textbooks. Noel Morris's latest book in one of a series of publications which are intended to meet this important demand. Although the formative chapters are devoted to general electronic principles, the main emphasis of the book lies in the factual presentation of electronic devices, its associated circuits and examples of their various applications. The functional aspects are vividly described with the aid of a useful collection of diagrams. Some of the interesting features include the manufacture of monolithic integrated circuits, the analog shift register, and a detailed study of semiconductor memories. The author has thoughtfully given a chapter on multilayer devices and their use in power systems. Both students and technologists should find this book helpful in elucidating some of the more significant developments in electronic technology. The only serious reservation is that it would be desirable to have seen some reference to possible source material and available technical publications issued by various institutions and manufacturers.

Amplification

F. W. Kellaway

Electronics. By K. J. Close and J. Yarwood. University Tutorial Press £5.00. 7231 0608 8. Modern Electronics Made Simple. By George H. Olsen. W. H. Allen £2.95. 491 01758 8. Electronics these days can be regarded as much as a science subject, and expectations are fulfilled. A level physics was thought daring in the 1950s, but now it is a commonplace. The well-known names of Close and Yarwood promise a reliable treatment of this important subject, and expectations are fulfilled. Their work is appropriate for students on degree or diploma courses in science or engineering. The authors wisely make two stipulations for themselves. They have placed the emphasis on "semiconductor devices, circuits and systems where the signal frequency is below 100 kHz" with high-frequency and microwave work excluded because their study is better left to more specialised stages of the course. Second, they have minimized the mathematics involved, although there are no concessions to the hummerer. Integration and partial differential equations are required from the start, with the processes taken for granted. (Oddly, a chapter on logic circuits contains the basics of binary arithmetic which might certainly have been assumed knowledge.) There is a sensible progression of explanation of the theoretical and practical essentials of semiconductor physics. It is intellectually demanding, but the good undergraduate will find his needs efficiently met. The second book is designed for a different market. Whether the subject can really be "made simple" in the sense of the publisher's aspirations for a series created primarily for self-education is debatable. It is, frankly, doubtful. What can be done is to pick out the bones, show what they are composed of, how they fit together, and what functions they serve. Mr Olsen has performed this anatomical exercise with aplomb and success. He assumes no more than an acquaintance with elementary electricity, and he virtually eliminates mathematics. Some of the reasons why things work as they do must therefore be taken on trust. There are, nevertheless, remarkably clear explanations of, for instance, the principles of radio and television transmission and reception, rectifiers and photoelectric cells. George Olsen starts at the beginning, even to the extent of defining and distinguishing between series and parallel arrangements of resistors, and between insulators and conductors. Then, through the standard diodes and transistors, he guides the reader to the complexities of amplifiers and oscillator power supplies, integrated circuits and the digital computer. It is an era when the applications of science have produced technological miracles, a general appreciation of what they are all about should be available to his non-specialist. Mr Olsen's techniques satisfy this criterion. And for those who wish to climb more academic heights, Messrs Close and Yarwood will help them.

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So what's new in metallurgy?

William Cleghorn. An Introduction to Metallurgy (second edition, SI units). By Alan Cottrell. Edward Arnold £11.00. 7131 2509 8. £5.00. 7131 2510 1. More than an excellent introduction, this is another review in this journal of the first edition appeared in 1967 (earning for himself a modest permanence on the back cover of the second edition). For it reaffirms in a very positive manner that metallurgy is a discipline worth pursuing in its own right. Let's not beat about the bush: that judgment still stands—so what's new? It may be an indication of diminishing returns to large-scale research effort that despite the publication of the first edition in 1967, the metallurgical industry has not changed. A new champion among superconducting alloys; the present time replacing the future in one sentence about developments in fibre-reinforced composite materials; a dab of inflation accounting over the cash benefits of weight-saving in design; these are the lights of brush strokes on the surface of so elegant and thorough exposition of scientific principles and their metallurgical applications that should withstand many more years of scientific and technological progress before such headline cracks begin to show. There is a crop of new references in the bibliographies appended to each chapter, as evidence that Cottrell has taken care to satisfy himself on many questions of metallurgical progress while he was engaged in rounding up and herding from the pages every last cog and all its c.g.s. siblings to make way for their SI cousins. Evidently the facts have not changed much in nine years. What has happened, and is widely recognized to have done so, is the society's sensitivity towards the pursuit, in the classroom or in the factory, of applied sciences, metallurgy among them. Cottrell wisely prefaces his text by inquiring why we need metallurgy as at all. If we wish to make an intelligent choice of a steel for a nuclear reactor pressure vessel... But it's no longer just the degree courses in metallurgy that have maintained their popularity since those words were published in 1967. It is because intelligent young scientists inclined towards metallurgy have begun to take up cudgels on other, more threatening fronts. The history of metallurgical science over the last 100 years or so is a record of towering success built on a rigorously disciplined understanding of the properties of metals—and no amount of sensitivity is going to change society's need for people who understand that.

Short circuiting

Clifford T. Jenkins. Bulk Electricity (Second edition). By W. M. Gibson. Longman £3.25. 582 4481 1. Semiconductor Devices, by Noel M. Morris. Macmillan £7.95. 333 18535 8. £3.95. 333 18536 6. W. M. Gibson has written a plucky and excellent text on the basic aspects of electronics which is intended for students in higher education, especially those who are reading first-year physics. The author introduces the subject with a description of the elementary principles of electrostatic forces on the basis of electricity. He then examines the movement of charges as the consequence of "elementary relativistic mechanics". This leads to the development of electromagnetism as an integral part of electric forces caused by moving charges. The first 10 chapters under the sub-heading of "Fundamentals" cover a range of topics relating to the nature of electric and magnetic fields both in free space and materials. It includes some cogently presented chapters on the electric field, capacitance and currents, deals with ac theory and quite naturally relates to impedance, resonant circuits and transformers, concluding with some of the principal elements of ac measurement. Quite patently the text is meant to be taken not merely as an orthodox source of material and available information. The author has a lively, provocative style which should stimulate many readers into

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24 Books/Technical Subjects

Brick by brick account

A. G. G. Richards

Building Maintenance. By Ivor H. Sealey. Macmillan £5.95, 333 17160 8.

Building Services and Equipment. By F. Hall. Longmans £6.60, 582 4203 8, £4.50, 583 42032 6.

Industrial Studies for Construction Craft Students. Edited by I. M. Dublin and E. N. Tuxworth. Huddersfield Polytechnic Faculty of Education £2.25.

Industrial Studies for Building Craft Students. By R. C. Boncher. Macmillan £2.95, 333 19389 2.

Brickwork Bonding Problems and Solutions. By W. C. Boncher. Hutchinson £1.95, 09 12787 6.

Building Maintenance is intended for final professional candidates and for graduate courses in building technology or economics. The arrangement of the book lies in a comprehensive and up-to-date technology of maintenance, set out in the section entitled "Building Maintenance Problems and their Solution" and later applied in the chapters on "Execution" and "Sinter-velon".

The high level study of maintenance which is the book and in the review is taken to include also renovation and additions) needs no justification. No space is given to a discussion of maintenance policy, apart from the mandatory reference to the 40 per cent of new buildings work forced upon in this work; but in this appraisal of the book and its importance, some reference should properly be made to the policy of demolition and replacement especially in town centres.

There is a growing conviction that an alternative policy of maintenance could have preserved a heritage and saved a lot of money. In a time of deep recession and high unemployment in the industry, any builder prepared to do maintenance has a hard time. The more work that can be done. One reason is that both client and contractor are apprehensive about costs, which are difficult to determine accurately. The result is that valuable building stock is not being conserved.

These two points emphasize the

Timber!

Woodwork. By J. Iley. Woodhead £3.45, 216 90249 5, £2.45, 902187 1.

General Certificate Woodwork. By H. E. King. Harrow £2.25, 245 52872 5.

Woodwork is a comprehensive guide to timber, tools and techniques required by those intending to take GCE O level, CSE or equivalent examinations. Although this book was first published in 1967, it has stood the test of time very well and this amended edition, amply illustrated in colour in metric units throughout.

The first half is on the development and handling of various timbers, followed by the use of each of the common woodworking tools, while the second half gives detailed information on the processes of shaping and joining of wood. The contents pages (over five of them) are arranged in a logical order, and the book is a good point of reference for teachers, together with well-illustrated text, questions should ensure that pupils are well-prepared for their examinations.

General Certificate Woodwork was first published in 1947 and this, the sixth edition, is fully re-estimated. The primary purpose of this book is to help those pupils who are preparing for the woodwork examination in GCE and it has been so arranged to enable pupils to concentrate on the necessary information and practical work in the two years prior to the examination. The three main areas of study—theory, drawing and practical work—are well covered but, beside a modern cover, is a book which is a well-illustrated look. The publishers would have been well advised to pay more attention to the quality of the printing. Ian Gatten

economics of maintenance work, and the chapter on "Measurement and Pricing" is disappointing. The bulk of the text is a summary of almost the entire range of the measurement of building work with no special reference to costs of maintenance, and the examples worked through are purely addition/alteration work.

The book is splendidly served by a fine index and over 400 references. Written with the authority and competence we have come to expect from Dr Sealey, it will be invaluable to students and to those in professional or commercial practice in the maintenance, alteration and improvement of our stock of buildings.

Volume one of Building Services and Equipment claims to cover the subject of the technician and higher technical level and the final professional examination of the Institute of Building. The claim is more than justified.

In 12 chapters it deals with cold and hot water supply, all aspects of thermal comfort and the disposal of surface water, waste, sewage and refuse. Brief notes explain the standards and the limitations of the students and the course conditions, one is left with a slightly overwhelmed feeling; it is as if a hammer had been set up to end a nail.

Brickwork Bonding Problems and Solutions is made up entirely of drawings in elevation or plan, a few illustrations and bonding practice but most of them seem to be solving 14th century problems.

This is a good use of material because the technical level of education experience, being in mind the limitations of the students and the course conditions, one is left with a slightly overwhelmed feeling; it is as if a hammer had been set up to end a nail. These problems have a good model of an essential part of the work.

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25 Books/Technical Subjects

Reconciling the two cultures

F. W. Kellaway

The Humane Technologist. By Duncan Davies, Tom Banfield and Ray Sheelton. Oxford University Press £4.75, 19 858325 7.

The Existential Pleasures of Engineering. By Samuel C. Florman. Barnes and Jenkins £3.75, 214 20238 3.

Technology is much misunderstood, and technologists often more so. Charges that they are largely responsible for widespread misery and destruction, and for a deteriorating quality of life, are abundant.

Now, coincidentally, come two effective replies. In the Impertinent Science and Engineering Policy series three members of the staff of Imperial Chemical Industries examine the problems involved in improving the linkages between technology and its users and its application.

The Humane Technologist, by Duncan Davies, Tom Banfield and Ray Sheelton, is a series of essays, written by three members of the staff of Imperial Chemical Industries, which are unjustified. As elementary in-stance, the very first illustration is of a Venturi diagram, as designated but not defined, by a caption which is not in the text, and which is not in the index; while the uninitiated reader must be alert to interpret DCF analysis, and indeed other quasi-mathematical references.

The essence of their proposals is that a method of modelling and simulation will help, both in fostering good relationships and in solving some of the economic and social problems of our time. But there is much more to the book than this, vital as it could prove.

There is a review of the pattern of technological growth, with emphasis

on reliability, economy and acceptability. The authors consider natural resources, threats of famine and disease, and the relationships of saving, investment, and money systems. They continually stress the human situation associated with questions of population, education, environmental pollution and control, and (a feature which accords remarkably with its context) the message of Machiavelli's The Prince.

The Humane Technologist is a book to stimulate discussion, and it would be disappointing if it were received with polite applause or in unshared silence. In this they should not be disappointed, but they may expect criticism that they have not overcome the difficulties of communication with non-technologists who will not always find their language easy to follow. There are assumptions of pre-knowledge which are unjustified. As elementary in-stance, the very first illustration is of a Venturi diagram, as designated but not defined, by a caption which is not in the text, and which is not in the index; while the uninitiated reader must be alert to interpret DCF analysis, and indeed other quasi-mathematical references.

Assume, however, that the technique of modelling is understood, and the principles of the synthetic or "top-down" and synthetic or "bottom-up" forms are appreciated; then the arguments advanced, with abundant exemplars, are persuasive in the extreme.

To ensure future generations of more "complete" technologists, competent to devise the desired models and to interpret them to

others, and fitted to work, or play, alongside these others, the authors consider education and desirable reforms. Here again a restatement of objectives is sought, with appropriate inter-relationships of basic education, specialist studies and the assembly of skills. Pupils should "be literate and articulate" (one would have wished to see univariate also); "firm foundations" are essential; while "disciplinary boundaries" are necessary, with "inter-disciplinary attacks fairly late in the educational process, perhaps with emphasis on post-experience studies as in the business schools."

There used be no caviar at this; but when we are told that "technological education has little to say about people and their responses and preferences" it is necessary to ask that the word "some" should precede the occasion. Many degree and diploma courses regard human relations and its concomitants as vital parts of an integrated course.

Mr Florman's book makes more straightforward reading, although he is less profound in his philosophy. He offers a thoughtful, ordered, refutation of the anti-technologist's claim that our lives are being spoiled and our work has become tedious and demeaning, so that we engage in an egoistic pursuit of consumable goods that we really do not want, and in diversionary which destroy the existential sense of our being.

In writing that "the engineer uses the logic of science to achieve practical results, while the existentialist is guided by the promulgations of his heart which, as Pascal said, has its reasons that reason cannot know" Mr Florman has, as a practitioner, a more objective, and a more objective, than the definition of

the antagonism between "the two cultures." This antagonism, he believes, is due to a misapprehension of "the nature of the engineering experience" and he denies that technology is inherently evil and destructive.

He does not shrink from citing the propositions of anti-technologists, though their supporters might feel that some quotations have been selected as apt soliloquies. Even the targets are thoroughly demolished.

However, despite a recognition of corruption and exploitation, environmental damage and structural disaster, Mr Florman believes that it is not the engineering profession, but democracy, that is on trial. It is not, he asserts, "runaway technology" but "people making choices" that has created our present onerous and excruciating.

Now it is for the engineer to proclaim the existential gratification that his work affords. "Analysis, rationality, materialism and practical creativity do not preclude emotional fulfilment." There will be no utopia, for "human beings are no varied, too fickle and too willful." But there can be ideals, and the engineer can be proud of his contribution in a society arriving to words these ideals. His experience can lead to "the good life".

Physical

Physical Science for Technicians: A First Level Unit. By W. Bolton. McGraw-Hill £2.25, 07 084216 7.

Readers of Mr Bolton's original and thoughtful text *Physics for Technicians* will recognise the easy style of *Physical Science for Technicians*. This book is intended for people studying a first level physical science course towards the certificate and diploma awards of the Technician Education Council and is based on the objectives of that body's Physical Science Unit (TEC U75/004) which are discussed in the introduction.

The first four chapters are devoted to mechanics with a strong emphasis on materials. Graphical presentation of data and its interpretation are introduced at length and basic notions such as units, the SI and powers of 10 are dealt with as required. A chapter on uniformly accelerated motion defines Newton's first law and describes the second law without formal definition.

The concepts of energy and fluid pressure are both well illustrated and applied. Chapters on heat, electricity and waves (refraction and reflection only) follow and the book concludes with a chapter on chemical reactions which includes sections on the chemistry of air and the electrochemical series. Chemical symbolism is not introduced at this stage.

Though the course is built around set objectives, the author also includes a wide range of additional information of industrial and economic interest. Numerous problems are provided at the ends of chapters together with a few general discussion points and short bibliographies for easy reference. The book is adequately illustrated with diagrams and several monochrome plates and, despite some minor inconsistencies, is a most readable introduction to the subject.

Peter Huw Morgan

Practical maths

Joyce Linfoot

Managing Mathematically. By Terry Green and John Walsh. Macmillan £4.95, 333 19113 7.

This book has been planned for students in polytechnics, and particularly for part-time students who already have some business experience. For those who have never learnt much mathematics it is better, Alan Hale writes in his introduction, to begin with the formulation and analysis of practical problems, and to postpone the teaching of mathematical techniques until the students see the necessity for them.

Writing according to this plan, the authors begin with the apparently simple question "How should the manager of a hotel organise the changing and laundering of sheets?" and on this basis continue to discuss histograms, frequency tables, standard deviation, probability models, and the normal distribution. Temporarily abandoning the problem, they then write two chapters on linear and other functions, and after this the sheets are brought in again, and on their account the reader is involved with sets of linear equations, the representation of linear inequalities, and linear pro-

gramming. But, as the authors say, "sophisticated models are often lengthy and difficult"; the original problem having proved intractable, a simpler one is substituted, and, finally, solved.

To give such a laid outline would be unfair if one did not mention that there is useful practical advice on sampling and the collection of data, and equally useful warnings that the answers which come out of computers are no better than the programmes which go into them. It should be added, too, that this book was never intended as a substitute for a lecture course on statistics, but only as a supplement, and as an encouragement for students who fight shy of mathematical thinking.

As such, it may be helpful, given the existing situation. But it is beginning to seem that students should begin a course in management studies having learnt so little relevant mathematics at school, or needing to be told that for success in an examination "learning the technique is not sufficient; they must be understood as well."

It is perhaps not always wise to encourage students to criticize questions set in examinations. They should think very hard before assuming that a question has been carelessly set; in particular, they should learn that words such as "significance" are used more precisely in statistics than in common parlance.

Eating safely

Why Additives? The Safety of Foods. Revised and edited by the British Nutrition Foundation. Queenway, London W2. £1.50, 301762 00 1.

Between authoritative contributors' views about preservatives, antioxidants, emulsifiers, stabilizers, colouring agents, flavors, sweeteners, nutritive additives in bread, dairy milk, dairy products, animal products, etc. Dr. P. B. Kellaway

effects of food additives, in this paperback publication of 75 pages.

The presentation is in the form of a symposium treatment of the controversial subject of adding chemicals to food. The presentation of facts about the merits and demerits of the case will doubtless allay the understandable anxieties of many consumers.

This is an excellent monograph for all students of home economics, hotel and catering and food education, and also the interested lay public.

Foundation Design Simply Explained

John Faber and Brian Johnson

The first edition of this book, published in 1961, immediately became popular with students of engineering and architecture, as well as with draughtsmen and assistants interested in a practical understanding of foundations. In this new edition, the text has been brought completely up to date, and is in line with the latest Codes of Practice—CP2004: 1972 for Foundations and CP110: 1972 for Structural Concrete. S.I. Units are used throughout. Second edition £3.95

Reinforced Concrete Simply Explained

John Faber and David Alsop

This new edition is based on the latest methods of design, using the limit-state concept with the application of partial safety factors. Other changes in reinforced-concrete practice, embodied in CP110 *The structural use of concrete*, include the use of high-yield steels, and a more realistic attitude towards actual strengths of concretes. S.I. units are used exclusively. Sixth edition £4.95

Structural Mechanics

Andrew C. Palmer

An engineer concerned with structures finds himself confronted with questions about their mechanical behaviour: How much load can be applied to a certain bridge before it collapses? Is there a risk that the framework will buckle? How can it be redesigned to carry a greater load or to cover a wider span? This book sets out to explain and develop methods which an engineer can apply to problems of this kind at a level appropriate to first- and second-year undergraduates. £7 paper covers £3.50 Oxford Engineering Science Texts

Oxford University Press

General Engineering Science for Technicians

R. J. Besanko and T. H. Jenkins

This established text book has been expanded, revised, and updated to cover the courses in engineering science offered for the Technician Certificate and Diploma of the Technician Education Council. The main subjects covered are statics, dynamics, heat, electricity, magnetism, and chemistry. S.I. units are used throughout. Third edition illustrated paper covers £2.50 *forthcoming*

Engineering Drawing and Construction

L. C. Mott

For the second edition of this book, which uses S.I. units exclusively, the two volumes of the first edition have been combined in one. This gives a complete text for such established courses as the General course in Engineering, the Mechanical Engineering Technicians course, Ordinary National Certificate, and C.C.E. 'A' level, as well as for the Technician Certificate and Diploma now being introduced by the Technician Education Council. Paper covers £3.95

Motor Trade Management

Alan Shier

This book provides coverage of the relevant syllabuses of the Institute of the Motor Industry, the Institute of Road Transport Engineers, and the City and Guilds of London Institute Motor Vehicle Technicians course. It is aimed at students who have followed practical technical courses and who need a book relating to their own specific needs in the motor trade. Paper covers £1.95 *forthcoming*

Oxford University Press

Sounds of war

The Imperial War Museum opens its sound records archive this week. JIM BROMWICH reports

Recordings have been used to stimulate and provide variety in the classroom for many years. But only recently have the benefits of academic interest in oral history begun to emerge.

The dramatic changes of the twentieth century have sharpened our awareness of what we are losing in experience and memory as the older generations disappear. The Imperial War Museum was one of the first to recognize the need to create a sound records archive and in its work since 1972 has assembled more than 3,500 hours of recordings—one of the largest collections in the country. This archive is now open to the public for the first time.

The Sound Records Department will be of considerable benefit to the educationist, as well as the professional researcher, in far wider fields than simply the recollection of wartime experiences. The museum's terms of reference are broad: a very wide spectrum of material is covered by aspects of the two world wars, while for the majority of people, are probably the two most significant events of this century. Despite the vast scope offered, the department has pursued a coherent policy of development both in making its own recordings and in acquiring others.

Initially its own work, naturally enough, was concentrated on the First World War. It has compiled five series of interviews dealing with different aspects of the war. As well as such obvious topics as the Western Front and aviation, there is

a collection which covers the experiences of ordinary seamen, illustrating life on the lower deck between 1910 and 1922, and assessing the impact of the war on naval life.

There are plenty of interviews with industrial workers recounting the mood of the Home Front (and shedding light on the role of women), and useful, perhaps unexpected, material on the anti-war movement. The department has also embarked on two projects covering the inter-war period and again has struck a balance between the straightforward and the imaginative. The first is a series of interviews with British airmen coupled with the Spanish Civil War and life in the army in India.

The thematic approach has helped give direction to interviews and a rationale for selecting interviewees. The care and preparation is obvious in the attention to detail, length and precision of the replies arising from the infrequent but sensitive questions of the interviewees.

Of course, quality does vary—many of the speakers are, after all, in their eighties—but there is an extraordinary sense of reality in their recollections. One soldier vividly remembers being specially delegated to fly out the smelted mud-filled boots over his charcoal fire in a dug out. It is interesting, too, to note that men in 1914 were as struck by the famous pointing Kitchener poster as boys are now.

Vivid memories can sometimes modify, or least, our picture of a period provided by documents, and

occasionally can even bring into question conventional interpretations. Certainly the anti-war movement materials show up the complexity of the issues and the wide variety of responses of the participants and the people with whom they came into contact.

Many recordings have produced much more than the project titles suggest: a Welsh soldier spent many days describing his pre-war life as a wagoner and gamekeeper in North Wales and the local folk traditions. An upper middle class lady in the land army relates the absurdity of looking after family pets dumped on her "for the duration" and milking a cow for the local pub.

The by-products of the interviews are as interesting and, in a sense, as important as the main themes. The department is aware of this and takes considerable pride in the authenticity that emerges so clearly from the material.

The BBC sound archives are naturally a goldmine of material. The Imperial War Museum has been able to obtain all available broadcasts from the Second World War. News broadcasts, correspondence reports, and contemporary talks ranging from Raymond Geoffrey's BBC white streaks of the German bombers and the red glow of the first (with London churches abandoned on the skyline) to Richard Hillary analysing his feelings or being shot down in a dog-fight.

D-Day comes alive again from a sinking landing barge and from noisy background gunfire at the battle of Arnhem (and what is lost in recording technique is more than made up by the powerful actuality of the event).

Uncopyrighted BBC sound material is also steadily being acquired: royal speeches, ministerial broadcasts, and so on, from the war itself, supplemented by pre and post-war recordings. Television material—invariably, for example, from the BBC's Great War and the Home Front programme—has been obtained, too.

Miscellaneous collections, such as Nazi leaders' speeches and Roosevelt's fireside chats, are broadcast by the ENSA recordings, found by BF network in a Cologne cellar, which have provided the museum with a collection of very early Ted Heath broadcast broadcasts. More fun, perhaps, than the "sound effects" of war which the department hopes to put together soon.

The potential of such easily available resources is enormous. The authenticity of real experience is the riches that he brought into the classroom; El Alamein can be studied not simply at the level of high strategy, but also with a least of a battle report from the BBC radio.

Adolescents learning about the role of violence can discuss how earlier generation faced it, and so can be encouraged to, and actually be, more rejected it, and actually be more of their arguments. A whole set of lessons could be structured round the recordings available on the role and position of women, both in the war and in the post-war period. It is even a description of G. B. Shaw visit to a Royal Flying Corps camp in France to brighten up a flagging lesson on Major Bix

hour's topic, casting only the cassette form, could contain particular unit: the teacher selected from interviews or other archival material he may choose. It can select the quietest, which give a very full breakdown of the recordings.

If he wants "Trench life: rain, mud and mud", described by a soldier, the catalogue will tell him exactly which reel of the interview is on and what will be covered for him. In 50 per cent of cases there are full written transcripts. He will increase, ideally, the teacher should hear the material himself and copying is offered at the spot: a half-hour's wait for a hour's recording.

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Tapes, both cassette and reel, are sold in quarter-hour units. An



Exchanging stories

Mary Ticehurst

On four dull, rainy Thursday afternoons last term 10 13-year-olds from Broadnook Comprehensive School, Weston-super-Mare, passed 11 10-year-olds from Uphill Junior School, three-quarters of a mile away, en route for an important meeting.

They were taking part in a story-writing scheme in which they wrote for one another, in pairs, instead of for a teacher.

It had not been easy to set up the scheme. Only one of the Broadnook children's English lessons was long enough (70 minutes) to allow for the walk between schools, and this occurred immediately after lunch, at 1.10 pm: the junior school did not start afternoon school until 1.30 pm. The half-hour was used, on the first occasion, for the children to meet and find out as much as they could about each other's backgrounds, tastes and interests.

This common afterwards from a Broadnook boy is typical: "When we started I didn't know what to say, but after a while we began to talk more freely. He seemed to like talking about his school and his favourite kind of music. I thought he was pretty smart for his age." Before the next three Thursdays, at three-week intervals, 42 stories were exchanged and read. At these meetings the conversation was

mainly about the writing they had done for one another. Several children chose to write serious, and the older ones tried to write about their stories to a younger reader. There was a real attempt to be constructively critical, both of their own and one another's stories, or to give them the reaction of this Broadnook boy:

"All the stories I have written are meant to be short, but I got involved with them. This story is meant to be simple and easy for him to understand, but I think he will not understand bits of it. I like my story because there are plenty of things I can add in the next episode."

No one produced careless or badly presented work, and several of the younger children had taken pains to provide illustrations. The subject matter reflects the children's reading and television-watching. Several older boys wrote about war or cowboys, and younger boys about James Bond, Bionic Man or Juvs. Perhaps slightly disturbingly, many younger boys wrote about ghosts or vampires, or murder or mystery.

There were few animal or football stories: the personal interests which did emerge came mainly from older boys—in particular, cycling and sailing. There was a marked "family affair" in younger age-groups: camping, hiking, swimming (about home), in which the main protagonists were children, and the events seen from a child's point of view, to the older ones (about hijackings, burglaries, plane crashes), in which the experiences were those of adults.

Among the 138 stories there is a great deal of impressive writing. There is astonishing detail: "My suitcase was full of the things I needed. At the bottom a rubber thing which had a lining which was a perfect camouflage agent and inside the tie was a rope. Next I had a casual suit but which camouflaged three knives, a nice revolver which went with the suit. For the shoes I had a pair of daps, a pair of comfortable boots and a pair of formal shoes. I also had a pair of rubber gloves and one of these mini-put-together bikes..."

There is gentle humour: "I am in the last year that so the 11plus and passed for the grammar school. Now things have gone comprehensive, and all the middle school children have moved in with us. Our building, in fact, used to be the first and second years of the grammar school, the senior part being about a mile away. But there was no room for us up at that building—the high school, as we now call it. So we are in fact the first and second years of the school and the second year of the high school. Our parents receive letters and notices from the heads of both schools. Through we are two schools in one building, there is an rivalry. The schools are split into three houses: Armstrong (my house), Stephenson and Collingwood. Some pupils from each of the four years are in each house. In the play-yard the fourth year gladly led the third and other years join in cricket and football, and praise them as much as players of their own age, for good play. This is, of course, except for the naturally expected to be better anyway. When we compare against other schools we could represent one school one day and the other the next. Someone from our fourth year was in the middle school assembly at the Eynedale Music Festival, yet our under-14 rugby team, which led down from the fourth year, represents the high school, not the middle school. On Mondays and Fridays the schools have assembly together. We (the fourth year) stand at the back as we are the oldest and tallest, with the other three years, all clad in their almost new blue, standing in front. The headmaster of the Middle School takes the service. On Tuesdays and Wednesdays we

"Sukie was extremely spoilt in a nice way, because Mrs Violet loved her so. There was Sukie's bed and Sukie's tent and Sukie's plate and even Sukie's own chair with a silk cushion. I had it on the floor, and Sukie didn't eat on the floor like other kids. Oh no, Mrs Violet wouldn't dream of it. She ate off a special table appropriately named 'Sukie's table'..."

"There is tension: "It was about 7 o'clock, and freezing cold. I sat on the overturned bucket and waited, and waited, and waited. The mist was rising up off the water, the birds sang and the sun came out like an octopus with long, long arms, reflecting off the water. Bang! The noise of dynamite shattered my ears. It came from just around the bend in the river. I knew at once what was going on. Poachers used dynamite for fishing. They just light it and drop it in the river. It blows up and all the dead fish float to the top. If it were poachers, I would have to keep out of the way..."

There is realism, as in this younger girl's account of experiences in Cyprus: "...then we were told to go to the airport. Before we left I took a knife and went to the nearest bench and carved my name in big letters on the stone and it's still there now. We got home safely. We still have pictures of the way it was and we have that recording of the plane crash. It was recorded, there is a vision: "It was real. A cock pheasant was standing in the garden pecking at a snail crust which John had put out for the birds the day before. Tears came into his eyes. He wanted to laugh, or cry, or stand

on his head or kick a ball. He wanted to die for the bird. The children seem to have valued this experience socially more than in any other way. There were scarcely any absences, and they all appreciated the opportunity to make new friends. The annual help they could give was a change from the one-sided relationship with a teacher.

The project was a break from school routine, and a stimulus to new ideas. The older children found it illuminating to be reminded of the kinds of story they had written when they were younger. One boy summed up his feelings rather grandly: "I think I would never regret taking part in a scheme of this kind because not only is it far better education, it is further experience."

Two other Broadnook girls worked with sixth-formers instead of with younger children, and the partnership worked well. The sixth-formers valued the experience as an opportunity to do some original writing, an antidote to examination work, and as a link with main school.

One partnership agreed to record their meetings. The tapes are intended to be essentially on interview, in which the elder child is the initiator and guides her junior school partner with remarkable poise. She criticizes with delicacy, and then disarmingly applies the criticism to herself.

Carey: "You could have quite a lot to say 'cos you know what to write. It was good writing. It's just that on this thing once you start you carry on and on, don't you? You don't stop."



Julie: "I'm not very good at punctuation. Carol: "No, neither am I. Right, I've talked about yours. Now you talk about mine. The lesson about punctuation is later rubbed home when Carol tries to read Julie's story aloud and finds it impossible to sight."

We started with the idea that children might write better for one another than for a teacher, but this is probably true over only a short period. They found it difficult to sustain useful comment on one another's stories when they met, and in at least one instance, when a teacher intervened to initiate natural discussion, were relieved to be guided.

It was difficult for the older children to write especially for a younger reader, and most reverted to writing what they felt most competent at. This seemed to raise no problems, the younger ones, if anything, appreciating stronger input.

The stories did not necessarily improve as the project progressed: in the case of the Broadnook children the second stories were overwhelmingly the best, whereas the juniors did equally well with their second and third stories.

Detailing preliminary work with the Broadnook group, based on post study of literature and drawing attention to character, plot and writing to any great extent. The children continued to write well in those areas in which they had shown strength before, and to ignore other aspects of story writing.

Not all the partnerships worked well, though I did not seem to matter that a mixed ability class of older children was matched with high ability juniors. The age difference compensated for any academic discrepancy, and some of the older ones commented frankly that their younger partners were "better at spelling and full stops" than they were.

There has been a marked sense of achievement among those who have put their names to the writing. It was good writing. It's just that on this thing once you start you carry on and on, don't you? You don't stop.

Mary Ticehurst teaches at Broadnook School, Weston-super-Mare, Avon.

Around 10,000 children visit the Isle of Wight each year, according to the Isle of Wight Tourist Board, which has prepared a file of information to help schools organize visits. It gives suggestions on places to visit, safety, organization and wet weather activities. It is also duplicating masters on natural history, geology, history, architecture and industry. The file is available free from the Isle of Wight Tourist Board, High Street, Newport.

Gateway's film The Human Eye has won the British Sponsored Film Festival award for educational films. The film celebrates the structure of the human eye with that of other animals. It has a running time of 15 minutes and is intended for use in secondary schools. Gateway Educational Media, Waverley Road, Yale, Bristol.

Slide-Tape Competition for Schools

Organized by The National Committee for Audio-Visual Aids in Education

VALUABLE PRIZES including contributions from Rank Audio-Visual, Bell & Howell, BASF, Kodak, Philips and BISFA

Closing date: 30th September, 1977

Further details from: Malcolm Welchman, National Audio-Visual Aids Centre, 254 Belsize Road, London NW6 4BY. Telephone: 01 624 8812.

Wider horizons for Mary Glasgow

by Carolyn D'Grady

Mary Glasgow Publications, a company which so far has been almost exclusively associated with the production and distribution of materials for modern language teaching, is in broadening its activities. In September it will bring out the first editions of two new magazines for remedial reading and science.

This will be followed by a third magazine on geography, which will appear in the spring of 1978. All the magazines will broadly follow the same format as their successful magazines for modern language teaching.

In addition in August, Mary Glasgow will become the United Kingdom distributor for the materials—mainly filmstrips—produced by Educational Audio Visual Ltd. EAV's productions are at present distributed by E. J. Arnold. Like those produced by Mary Glasgow, EAV's materials are largely aimed at secondary schools. They cover a wide range of subjects, but are particularly strong in history, the arts and social sciences.

Mary Glasgow is able to expand its activities in this country partly because of its success abroad—80 per cent of the company's sales are made outside Britain: in Europe, the Commonwealth countries and North America. It is relying on large sales of its new magazines which are being sold at subscription prices.

The new remedial reading magazine, Now, will be aimed at young adolescents in secondary schools. Geo, the third magazine, will look at geographical subjects and is

aimed at 14 to 16-year-olds. It will, says Mary Glasgow, include "a wide range of source materials which are not readily available elsewhere". Part of the magazine will be in colour. An annual five issues will cost about £1.75.

Teachers will be able to take out a subscription to all nine issues of Now for 90p and additional copies of each issue will be available for class use at 10p per issue. The first series of Now will be kept in print for up to two years after the time a new series will be introduced.

Quest, a magazine covering scientific, technological and environmental subjects, is aimed at 12 to 14-year-olds. Like Now and Geo, it will have a geographical counter-part. It will take topical items and relate them to the subjects it covers. All the magazines have been extensively tested. The Quest pilot version contains, for example, information on artificial pasta which help people who are in some way handicapped. The information follows on from an article on the television bionic man and woman.

Two pilot issues of Quest have already been produced and circulated and a full series of six issues will be published annually. Subscription prices are £1.25 or £1.40 or more. Geo, the third magazine, will look at geographical subjects and is

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"The Bionic Gummy" Gummy will appear in each edition of "Quest". This is how she was seen in the pilot version.

Leisure crafts

Three new leisure crafts books deal with Silvercraft, Making Candles and Pin and Thread. These light guides are attractively produced and lavishly illustrated, often in colour. They make encouraging introductions to crafts for the beginner or amateur.

Silvercraft deals mainly with simple jewellery such as rings, pendants and cuff links. It explains the basic techniques and terms used and gives a list of tools. At the end of the book there are suggestions for making larger items, such as boxes and bottles, and for decorating articles by enamelling—described in another Leisure Crafts book, Homemade Enamel Jewellery.

Thread picture making is a relatively new craft involving drawing thread around pins to make designs. Shapes such as circles, ellipses and triangles are made of threads and there is an enormous range of materials. Pin and Thread 2 is simply an extension of Pin and Thread 1 but could be used independently since the craft is very easy to master.

People who are not very keen on crafts often enjoy making useful, meaningful things, and there is plenty of scope for them in Making Candles, which includes very simple items alongside more sophisticated ones. The books cost 50p each from bookshops or 65p direct from Leisurecraft Centre, 210 Jerden Place, London, SW6. Frances Foster

A tale of two schools

Mark Phillipson

It could have been a complete shambles. With fourth-year boys in black blazers and first, second and third-year boys in blue, there might have been fights between the respective years. There weren't. This year has progressed smoothly with only the usual amount of lights and that was not due to the different colours of the uniforms.

I am in the last year that so the 11plus and passed for the grammar school. Now things have gone comprehensive, and all the middle school children have moved in with us. Our building, in fact, used to be the first and second years of the grammar school, the senior part being about a mile away. But there was no room for us up at that building—the high school, as we now call it. So we are in fact the first and second years of the school and the second year of the high school. Our parents receive letters and notices from the heads of both schools.

Through we are two schools in one building, there is an rivalry. The schools are split into three houses: Armstrong (my house), Stephenson and Collingwood. Some pupils from each of the four years are in each house. In the play-yard the fourth year gladly led the third and other years join in cricket and football, and praise them as much as players of their own age, for good play. This is, of course, except for the naturally expected to be better anyway. When we compare against other schools we could represent one school one day and the other the next. Someone from our fourth year was in the middle school assembly at the Eynedale Music Festival, yet our under-14 rugby team, which led down from the fourth year, represents the high school, not the middle school. On Mondays and Fridays the schools have assembly together. We (the fourth year) stand at the back as we are the oldest and tallest, with the other three years, all clad in their almost new blue, standing in front. The headmaster of the Middle School takes the service. On Tuesdays and Wednesdays we

A Bill of Wrongs

Frances Fox Sandmel

"Wrongs" was the key word, unanimously voiced by a group of 10 to 12-year-old boys and girls interviewed recently in our American elementary school on the subject. What is on children's minds? Regularly responding to my involvement as teacher-interviewer, the children immediately took off into a spirited and sometimes indignant discussion of the status of being a child. They presented a snowballing "Bill of Wrongs": based on common experiences with parents, other adults in everyday life, and their own feelings, they presented a list of "wrongs" which they felt were being done to them. Upon re-entry, they believed your little brother or sister, or the baby-sitter, or your friend's

school children have moved in with us. Our building, in fact, used to be the first and second years of the grammar school, the senior part being about a mile away. But there was no room for us up at that building—the high school, as we now call it. So we are in fact the first and second years of the school and the second year of the high school. Our parents receive letters and notices from the heads of both schools.

Through we are two schools in one building, there is an rivalry. The schools are split into three houses: Armstrong (my house), Stephenson and Collingwood. Some pupils from each of the four years are in each house. In the play-yard the fourth year gladly led the third and other years join in cricket and football, and praise them as much as players of their own age, for good play. This is, of course, except for the naturally expected to be better anyway. When we compare against other schools we could represent one school one day and the other the next. Someone from our fourth year was in the middle school assembly at the Eynedale Music Festival, yet our under-14 rugby team, which led down from the fourth year, represents the high school, not the middle school. On Mondays and Fridays the schools have assembly together. We (the fourth year) stand at the back as we are the oldest and tallest, with the other three years, all clad in their almost new blue, standing in front. The headmaster of the Middle School takes the service. On Tuesdays and Wednesdays we

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mother instead of you. "They don't listen." There was general agreement with the statement. "They get angry at something that's going on with them, and they take it out on you." But the interview changed direction when one child said in surprise: "You know, there's no different from what we do to them! We come back from school after bad day and we're mean to them!"

After this discovery, coming at the peak of a series of complaints that seemed to condemn parents, the children were encouraged to put on shoes larger than their own, not to pretend, in this costume play, that they stood in their parents' places.

Some of the ideas that came out of this play-acting were: "Perhaps too much is going on at a certain time for parents in their own lives." "Perhaps they're tired when they don't understand us, and they need an aspirin, rather than another argu-

ment." "They punish us so that we don't do the same wrong things when we're older." "Sometimes they make stupid mistakes too, and that's when the wrong person gets blamed."

"Maybe they get upset when you don't act perfect because they're afraid they aren't perfect." "Maybe we bring us up right." "Maybe we do wrong things because we don't listen to what they really want." One child said: "Parents have different needs than we do."

As interviewer I then asked the children what they thought some of the heads of parents were. The answers had a wide range. "Parents need quiet, soft things, and we need things we can make noise with, and hard things that are fun." "Parents need jobs to get money to support their families, and gets to get to their jobs." "Parents need lots and lots of time in the bathroom."

"Parents need time to think about themselves sometimes, not just about the children." "Parents need to be

not sometimes." "Parents need the love of other adults who have gone through as much as they have."

The group discovered that many of the needs they mentioned were children's needs too. "Sleep to get rest for another day." "A good home." "To be proud, to be happy, to be mad sometimes too." "I need to have ideas. Without ideas, the world is dooooo." "They need to be understood. To be listened to." "They need to listen."

The most agreed-upon idea was that parents and children need to listen to each other more carefully, and take the time to talk to each other, and understand each other. Love, along with listen, was the word most often mentioned. The children summed up their discussion: "Parents and children need love, to have peace." "Without love, what is life?" Frances Fox Sandmel teaches at Clifton School, Cincinnati, Ohio.

speech was necessary. I don't think it was in the minds of any of the pupils to fool above and above from the Middle School staff and children, but the teachers were probably afraid that something like this might happen, and were trying to warn us from the beginning. From the pupils' angle, there soon to have been no hitches, the only awkward thing being that if someone asks me what school I go to and I say, "The High School," then I have to explain why in fact I am now going to the Middle School every day. I do add that, too, let that after being in a fourth form for a year I will go "up" into a fifth form next September!

Mark Phillipson is a pupil at Queen Elizabeth High School, Hexham, and former Middle School, Northumberland.

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MIDDLE
Modern Language
continued

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Headteacher: Mrs. J. G. G. G. G.
Application forms available from
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HUMBERSIDE
METROPOLITAN COUNCIL
EDUCATION DEPARTMENT
100, Victoria Road, London W14 8JH.
1977-78. No. on Roll: 1,200.
Headteacher: Mr. J. J. J. J. J.
Application forms available from
the Headteacher at the school.
Closing date: 15th July 1977.

Scale 1 Posts

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Hamworthy, Dorset.
1977-78. No. on Roll: 420.
Headteacher: Mrs. J. G. G. G. G.
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Application forms available from
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Closing date: 15th July 1977.

Scale 1 Posts

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Hamworthy, Dorset.
1977-78. No. on Roll: 420.
Headteacher: Mrs. J. G. G. G. G.
Application forms available from
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Closing date: 15th July 1977.

Metropolitan Borough of Rochdale
EDUCATION DEPARTMENT
Closing date for all posts, 11th July, 1977.

PRIMARY

For application forms, send to the Chief Education Officer, Education Department, Municipal Buildings, Manchester Old Road, Middleton, M24 4EA. Unless otherwise stated, completed forms should be returned to the Head of the school.

MIDDLE AND SECONDARY

Forms and further details from and returnable to the Head Teacher at the School. Footscap stamped self addressed envelope please.

PRIMARY
Hopwood County Primary (5-11)
Magdale Street, Heywood OL10 2HN.
Tel. Heywood 80484.

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Hamworthy, Dorset.
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Headteacher: Mrs. J. G. G. G. G.
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1977-78. No. on Roll: 420.
Headteacher: Mrs. J. G. G. G. G.
Application forms available from
the Headteacher at the school.
Closing date: 15th July 1977.

MIDDLE
Kingsway (10-13)
Turf Hill Road, Rochdale OL16 4XA.
Tel. Rochdale 40931.
Required for September next:

TEMPORARY TEACHER OF MATHEMATICS
To take the subject with classes in the Second and Third Years, Scale 1.
Hollin High (11-14)
Stott Lane, of Hollin Lane, Middleton M24 3XN.
Tel. 081-843 3764.
Required for September:

MATHEMATICS Scale 1
And to help with Girls' Games.
Applications for this post should be by letter immediately to the Head at the school, stating age, qualifications and experience together with the names and addresses of two referees.
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Windermere Road, Langley, Middleton M24 4LA.
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(2) Required for September next:

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1977-78. No. on Roll: 420.
Headteacher: Mrs. J. G. G. G. G.
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Closing date: 15th July 1977.

EXTRA

Home economics and health education

To be judged on its merits

Jean M. Roberts of the ATDS on attitudes towards A level home economics as entry qualifications for higher education and training

During the past year the Association of Teachers of Domestic Science has been investigating the attitudes of professional organizations and institutions of higher education towards accepting A level home economics and dress and textiles as qualifications for entry to courses of advanced study and training.

Although there is still much work to be done, it has been possible to produce an interim report. These findings should be regarded as in no way exhaustive or conclusive as changes are occurring almost daily in the field of higher education, but it is time to take stock of the situation.

On the whole, replies to requests for information were helpful and showed a willingness to accept further representations where this might be of value. In a few cases, however, it was depressingly obvious that the writers were totally unaware of the contents of modern home economics A level courses and were replying from a position of complete ignorance.

What is more they were not even prepared to remedy things so that the case for the subject could be judged on its merits. This is regrettable for many reasons but particularly because able and gifted students may be deterred from courses for which they are very suitable and to which they could contribute much. Conversely these same students are being lost to other establishments and courses more readily prepared to accept the subjects they offer.

Hopefully there are few of these cases and we find that most colleges of higher education, an increasing number of universities and polytechnics, especially social studies and food science departments, many professional organizations including some major teaching hospitals, and the Civil Service readily accept home economics, but a lack of familiarity with the demands of the relatively new dress and textiles syllabus makes its position less favourable at the moment.

It would be wise to emphasize that it has never been the intention of the ATDS to suggest that home economics or dress and textiles should replace specific course requirements. But it deplores statements offering these subjects as, for example, one of three when other subjects unrelated to a particular course of study would be acceptable for many reasons but particularly because able and gifted students may be deterred from courses for which they are very suitable and to which they could contribute much. Conversely these same students are being lost to other establishments and courses more readily prepared to accept the subjects they offer.

When home economics was first included in the school curriculum it was a domestic subject concentrating on training into the less well-to-do girls the necessary practical skills to enable them to earn a living and eventually run a home efficiently. We, who teach the subject today have every reason to be proud of our forebears who did so excellent a job and fulfilled a social need in a way in which no other subject in the school curriculum could have done.

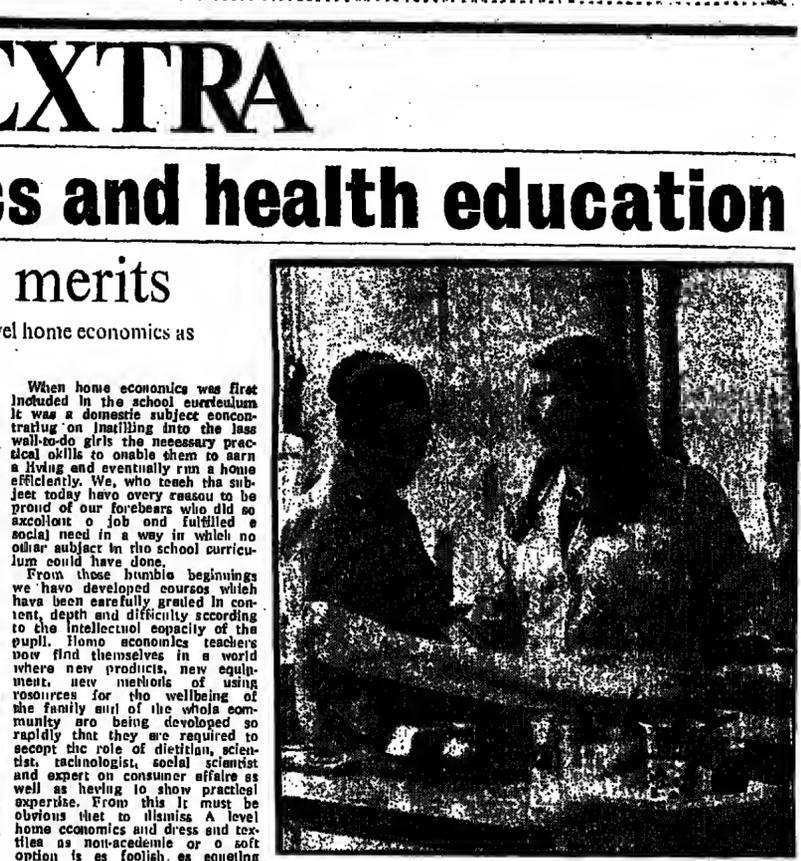
From these humble beginnings we have developed courses which have been carefully graded in content, depth and difficulty according to the intellectual capacity of the pupil. Home economics teachers now find themselves in a world where new products, new equipment, new methods of using resources for the wellbeing of the family and of the whole community are being developed so rapidly that they are required to accept the role of dietitian, scientist, technologist, social scientist and expert on consumer affairs as well as having to show practical expertise. From this it must be obvious that to illustrate A level home economics and dress and textiles as non-academic or a soft option is as foolish as equating maths with sums or English with writing.

Over the past few years examining boards, through their specialist subject committees, have carefully scrutinized their courses with the result that new, stimulating and interesting demanding A level syllabuses have been developed. These syllabuses, specimen papers and often reading lists are readily available and very worthy of perusal as an indication of the searching nature of present-day courses. Such scrutiny has done much to encourage the development and support of the Schools Council, we can boldly and confidently state our case for the positive advantages to be gained from taking an A level course in home economics and dress and textiles by students of both sexes.

If we accept that a student entering higher education must have an open and inquiring mind, the ability to read and research widely and to apply knowledge, where would one find a subject requiring these qualities in greater abundance? The subjects demand a knowledge of scientific and social facts and principles but, even more important, they require the ability to comprehend and to apply and relate these facts and principles relevantly to the family and to the wider community.

Our students must therefore be resourceful, independent, possessive and especially expert in using new developments wisely and yet exploiting them to the full. They must be able to experiment and evaluate activities that require both practical and intellectual expertise, but above all they must possess that highly prized attribute - common sense.

Unfortunately many interested and potentially good students have been discouraged in the past from taking the subjects because of the poor attitudes within the schools and in higher education. It is, however, very encouraging to discover from correspondence that the more able students are now fighting their own case.



Continued on page 41

Waltham Forest

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1977-78. No. on Roll: 420.
Headteacher: Mrs. J. G. G. G. G.
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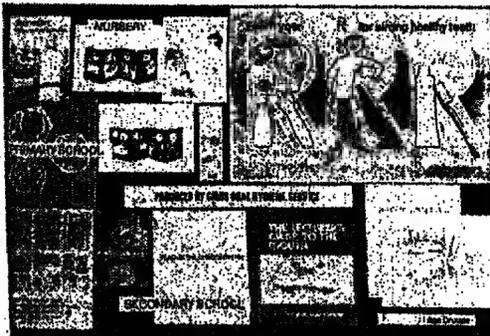
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Focus on home and family

By Vincent Hutchinson, director of the Schools Council project Home Economics in the Middle Years

Home economics has a vital contribution to make to the outcome of the debate about the curriculum. The Society relies heavily on the family to care for the needs of individuals.

So it can be argued that during the formative years children should clearly understand what makes the home and the family function effectively. This is of crucial importance to the individual and the wellbeing of society.

It is significant that in the report of a world survey of home and family education, published by Unesco in 1974, 81 per cent of the member governments of the United Nations thought home economics education would become increasingly important.

In 1975, the Schools Council established a three-year research and development project, Home Economics in the Middle Years, to consider the place of home economics in the curriculum of eight to 13-year-old pupils of both sexes, and its relationship with social and environmental studies with craft subjects and with science.

The project aims to:

- identify concepts and competencies for home economics in the middle years;
- prepare teacher materials for use with children aged eight to 13 and to evaluate their effectiveness.

During the initial inquiry phase, the project team met many teachers, specialist and non-specialist, in their schools, or teachers' centres and at conferences. Many difficulties relating to the selection of content were confirmed. The appropriateness of methods of teaching and the relationship of home economics to the varied patterns of integrated work was being undertaken in schools in the primary, middle and secondary sectors. The conclusions reached by the project team hold substantial implications for the structure and teaching of home economics.

The fundamental premise of the team is that the focus of home economics is the home and family. Home economics is a subject which integrates knowledge and draws upon methodologies and perspectives from other recognized disciplines. It lies at the interface between the home and the family and the products and services offered by society.

Thus the teacher of home economics has to integrate knowledge from many sources and apply it to the practical problems of everyday living. It is precisely because it is relevant in everyday life that home economics arouses the interest of boys and girls, and justifies recognition as a key area of the curriculum.

With its focus on the home and the family, how could home economics create a framework of understanding of value to the life of the individual? The evidence of the enquiry showed that much of the content of home economics was presented in too fragmentary a form to achieve this.

There was a need to identify the most important ideas within home economics so that pupils could gain a more organized and permanent understanding of the subject than they would be able to gain from a fragmented approach.

- The needs of individuals: which are met within the home and family: their physical needs for food, clothing and shelter; their social and emotional needs for love, security and a sense of belonging; their intellectual needs for stimulus and education.
- The needs of society: for healthy and educated citizens who are able to maintain economic viability into retirement; and for stable social groups.
- Knowledge related to the home and the family.

Consideration of these factors provides the long-term purpose of teaching home economics and enabled the team to derive the key concepts of the subject. In this way five concepts were identified: nutrition, protection, development, interdependence and management. These form a framework for developing a study of home economics.

Their purpose is twofold: to help in the formulation of objectives and the devising of learning experiences; to enable pupils to acquire not merely a particular skill or item of knowledge but to build up a conceptual framework, thereby enabling them to make wide use of their knowledge.

Each concept embodies a number of ideas which have been placed in an appropriate sequence for learning taking account of the logical build-up of the concept and the developmental stages of children between eight and 13 years of age. (A guide relating the developmental characteristics of children to the teaching of home economics is being prepared and will be published.) This sequential approach to learning is an essential feature of the curriculum model developed by the team. It is hoped that through an appropriate sequence of learning, a pupil will understand and will be published.) This sequential approach to learning is an essential feature of the curriculum model developed by the team. It is hoped that through an appropriate sequence of learning, a pupil will understand and will be published.)

From its inception, the project has placed emphasis on teacher involvement. Teacher development teams have been established in different parts of England and Wales to consider and apply the ideas which have emerged from the project. The commitment of these teachers and members of the advisory service to the work of the project has been recently appreciated.

Their participation has been essential in the preparation of materials for use during the first phase of the project. The interest between specialists and non-specialist teachers in primary, middle and secondary schools has created many links and know-how. This shared concern is in developing programmes appropriate to families today; with developing the capabilities and awareness of children; and with laying a lasting foundation of practical use and value for the next generation of parents.

continued from page 34

They carry with them to interview syllabuses and examples of home economics and use them to explain their courses to such good effect that appreciable numbers are being accepted for training despite the initial discouragement. Others are not even granted interviews solely on the basis of the courses they are following, but in fact for these candidates the ATDS is especially concerned.

It seems that if examining boards are doing their duty, as I believe they are through their specialist subject committees, standards of achievement at A level should be comparable and the only criterion for selection should be the quality of the student's work, whatever the subject.

Even those who do not achieve high grades at A level in home economics or dress and textiles

and decision making. In acquiring this content it is hoped that the pupil will develop an approach to the home which will allow him to use his knowledge and skills drawn from other areas of home economics.

The curriculum model involves consideration not only of key concepts but also pupils' needs and the school situation. Needs are determined partly by considering the characteristics of children at different stages of development in the middle years and partly by the teacher's assessment of pupils' previous knowledge, experience and attainment.

The school reflects the teacher's assessment of the needs of the neighbourhood, his or her own professional experience; and the resources available in the classroom, school and neighbourhood. The curriculum model provides a flexible strategy to enable teachers, in a variety of ways, to plan provision for the teaching of home economics in the classroom, school and neighbourhood.

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There is more to sex equality than providing similar curricula for boys and girls. Attitudes have also got to change, writes Barbara Wynn

Subtle pressures at work

With the passing of the Sex Discrimination Act a number of teachers have been examining areas of the curriculum which might discriminate against boys and girls. Subjects such as home economics which are taught mainly to one sex must obviously come under close scrutiny.

There is nothing new in the ideas recently given impetus by the Act to extend the teaching of traditional craft subjects to both sexes. As long ago as 1878 an entry in one school log book (in Nottinghamshire) pointed out that "there is no law forbidding boys domestic economy as an extra subject", and other books of the period encouraged the teaching of cookery to boys who lived in seaport towns or wanted to be chefs.

More recently (in 1914) it was suggested by the Association of Teachers of Domestic Science (ATDS) that "it is probable that the question of cookery instruction for boys in general will soon receive careful consideration". Well, more than 60 years later we are still waiting.

The cost of providing facilities has obviously been a strong disincentive to teaching home economics to boys, but there have also been more subtle pressures at work. Education for boys and girls has long been seen in a different light for one it was the preparation for a career, for the other a preparation for marriage.

The Croxher Report (1959), for example, said: "It can be no doubt that at this stage boys' careers turn most often to a career and only secondarily to marriage and the family, and that the converse obtains with girls... If it is sound educational policy to take account of natural interests, sharp is a clear case for a curriculum which respects the different roles they play."

Similarly the Newsom Report (1963) said: "For all girls there is a group of interests relating to what many, perhaps most of them, would regard as their most important vocational concern—marriage."

Today this is changing. In part as a result of the Sex Discrimination Act, but home economics is still only available to a minority of boys. In 1974, for example, O level cookery was taken by 44,135 girls but only 805 boys. For needlework the figures were 20,935 and 26. Similar differences are found in reverse in "boys' technical subjects."

When considering home economics courses for boys it is important that schools do not fall into the trap of providing watered-down, half-hearted, "how-to-help-your-mum-out-in-case-of-an-emergency" courses such as those suggested by readers of *Housecraft*, the ATDS magazine, a few years ago.

"In my experience the young wife is often restricted because she cannot carry out her school learning because of the 'meat and gravy' mentality of her husband."

"Although child care duties are a girl's subject, she may be able to reach husbandhood with a rather ingrained attitude towards character training."

The cookery course for boys differs greatly in its aims and practices from a girl's housecraft course... There will arise emergency situations if the wife is ill or when babies arrive. Practical instruction is therefore given in the rustling up of basic meals."

There is sometimes a temptation to try to attract pupils to the subject by doing lots of cookery in this early course. Then pupils get quite a shock when they later opt for the subject and find out how much hard work is involved.

Schools also need to ensure that the girls do not lose out by boys studying home economics. They need to have a fair chance to study basic woodwork and technical drawing. Here again a watered-down course is not what is wanted. Metalwork for girls should not just mean making jewellery.

There is, however, more to sex equality than providing similar curricula for boys and girls. Attitudes have also got to change. Home economics has long encouraged girls to feel that their main aim in life is to be housewives and mothers and consequently to lower their career horizons.

Many of the textbooks used in the subject have a very one-sided approach: "Husbands resent home-work taking priority over their own work and nothing sends a man to the local night after night more quickly than washing, ironing and eternal cleaning." (B. Ruth, *Home Economics*, 1970 and 1976).

The possibility that he might land a head so that they can both go out does not seem to occur to the author.

"You don't have to slave at the housework every evening as long as you spend those vital 45 minutes at each morning. You might give two evenings a week to one of round-up the carpets and stir a game of darts or something... Weakened for the working week, the time for doing the washing, mending and education with Lois Rodice (to be published by Croom Helm).

Housekeeping Institute, *Running a Home is Fun*, 1970 and 1975).

As can be seen from these quotations the only concession made to the changing situation of women is the acceptance (sometimes grudging) of their dual role. I have never seen in a home economics textbook any suggestion that it might be possible for both men and women to have one-and-a-half roles each.

Until there is a wider acceptance of the sharing and socialization of household tasks the possibilities for eliminating sex discrimination would seem to be very limited. Obviously teachers are not in a position to tell pupils how they should behave or run their lives after school, but surely schools do have a responsibility to broaden the horizons of their pupils and to give them a greater range of possibilities to consider.

To implement the Sex Discrimination Act in spirit as well as in letter is a long-term task. Home economics for boys will not automatically lead to more liberation for girls although it may eventually increase this possibility. Experience in Sweden, where Government educational policy states that "schools should work for equality between men and women—in the family, on the labour market and within society as a whole" has shown that changing deep-seated attitudes about sex roles is a long and difficult task. (E. Kjernegaard, "Home Economics and the Changing Roles of Men and Women" in *International Review of Education* 1973).

If home economics teaching is to make a contribution towards transferring this new anti-discrimination legislation into reality then a great deal of rethinking is going to be needed. It will need a conscious and determined effort not only to provide the equipment and encouragement for home economics to be taught to boys but also to change the attitudes behind the existing discrimination.

Barbara Wynn teaches home economics and social studies at a London comprehensive school. She is currently working on a book on sex and education with Lois Rodice (to be published by Croom Helm).

Fashion nights

Pins and Needles Fashion Nights '77 will be of special interest to those who like making their own clothes. Organized by *Pins and Needles* magazine, the fashion show will be touring the country this autumn.

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The shows begin at 7 pm and doors are open at 6.15 pm. The list of venues appears below, tickets cost 60p and can be obtained by writing to *Pins and Needles*, Room 235, Elm House, Elm Street, London, WC1. There are some afternoon performances, indicated by asterisks. These are specially put on for school groups, and the entrance fee is 35p (tickets available from the above address).

*September 23, Assembly Hall, Tunbridge Wells; *September 26, Top Rank Suite, Swansea; *September 27, Colston Hall, Bristol; September 28, Guildhall, Plymouth; September 29, Civic Hall, Guildford; *September 30, Pavilion, Westcliff; October 3, Trenchard Gardens, Stoke; October 4, Top Rank Suite, Shoffield; *October 5, Belle Vue, Mouchet; October 6, Tiffany's, Coventry; October 7, Leisure Centre, Chester; October 10, Pavilion, Norwich; *October 11, Norwold Rooms, Norwich; *Varnouth; October 12, Dome and Corn Exchange, Brighton; *October 13, Pavilion, Hemel Hempstead; October 14, Wither Gardens, Bournemouth; October 17, Tiffany's, Hull; October 18, Tiffany's, Leeds; October 19, Mynhall, Newcastle; October 20, Usher Hall, Edinburgh; *October 21, City Hall, Glasgow; *October 24, Commodore, Nottingham; *October 25, Commodore, Nottingham.

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Vivien McCalman describes a home economics department that opens its doors to all members of the local community

Patterns of communication

"I collect David from the Infants' school and they go home. I have to get the tea when I get home 'cos mum doesn't usually get home till after six o'clock. My dad works nights so he's usually asleep."

This comment made by a 12-year-old pupil, illustrates family life in 1977. Such a pattern of living often makes communication between family members very difficult. Therefore people of all ages should be given other opportunities to meet, talk to each other, and share experiences. In school, pupils mix with their peers so how can they become more involved with people of other age groups?

Home economics, with its unique focus of home and family, can offer children real opportunities to look at the family. Unfortunately, home economics lessons are rare for children during two or three years of secondary school education. But involvement of pupils' families, friends and neighbours in the activities of home economics lessons not only provides pupils with the opportunity to meet people of other age groups but extends the possibilities of learning to people outside school age.

At Erasmus Grange School and Community College, home economics is concerned with a study of the home and family by the pupils, and offers educational and recreational opportunities for all the family. The home economics department encourages interaction between people of all ages, and opens its doors to all members of the local community.

For toddlers of between two-and-a-half and four, a playgroup in the college offers a stimulating atmosphere and children from a wide variety of homes receive a friendly welcome from the playgroup staff. Open the door any day of the week and inside children can be found splashing brightly coloured paint on to their paper, seemingly unaware of the other children painting over it, or inventing a miniature fairland in the sand. Later the toddler may make an



Good relationships between teachers of primary and secondary schools make it possible to continue fostering the interest of children in home economics after they leave the playgroup. There is great excitement on the part of eight-year-olds as they sit down to drink tea and eat punch in the home economics department. Youngsters have further opportunities during the holidays. There are always queues of them interested in fabric work, cookery, and other holiday play scheme activities. The excitement and enthusiasm shown by these little children proves their success.

Even these young children are concerned with their own family life. One five-year-old, preparing to go on a family camping holiday, said, "If I make bread rolls and my sister makes a cake, we can take them with us so Mum isn't always cooking."

By the time pupils reach secondary school, many are familiar with the home economics area and are ready for a more concentrated study of home and family. A typical scene, illustrating 12 to 13-year-old pupils at work in an open-plan area is as follows:

In one area, the tables often used by pupils engaged in fabric work are being set with brightly coloured cloths and crockery. On a separate table, large prize books are being set out in preparation for a book exchange. Further into the home economics area, boys and girls are busily engaged in preparing lunch for 40 old people.

In another area, pupils are considering value for money when buying food and equipment for the home. Having devised their own experiments, carried out the tests, and drawn conclusions they are discussing the preparation of the



Helped by older pupils toddlers delight in making simple cakes

latest edition of *Best Buy*. This is a newsletter containing results of experiments and investigations carried out in class.

The newsletter is then taken home to parents and friends. Parents appreciate the information, and it also provides a useful basis for discussion within the home.

A baby's cry is heard in another area where pupils are learning how to take care of a young child. Two pupils from the group are visiting the playgroup, where they are studying toys suitable for young children. Four other girls and boys are drinking coffee and talking with some of the mothers at children from the playgroup.

Many pupils observe these children, who act as subjects for child studies required as part of child care courses. In return, pupils act as babysitters. Another group of pupils are hard at work, sanding down chairs and preparing to paint them with bright colours. The pupils not only learn how to improve old furniture, but provide a useful service to people in the community who might otherwise be unable to make such improvements to their homes.

The pupils are encouraged to meet people of all ages. Talking to old age pensioners, orientating young mothers and looking after young children, brings reality to the study of home and family.

For adults, a variety of opportunities are offered by the home economics department. Traditional cookery and dressmaking classes are among the most popular evening activities of the college. A stimulating club offers encouragement to local people. Often pupils attend the school during the daytime return in the evening to see alongside their mothers.

It is not always easy for people who might be interested in these activities at the college. The majority of the catchment area are young men many disadvantaged people from attending. Many people who would most benefit from social and educational activities lack the confidence to go in a large, strange place.

To encourage these people home economics staff meet small groups on more familiar ground. One such group meets in a community hall during a weekly afternoon watching films concerning child development, making collages alongside their small children, or reviewing children's books odds and ends of interest to these informal social meetings. This meetings also provide an opportunity in short experiences and problems of living in a crowded council housing estate.

The old people living in the catchment area have become very important in the activities within the home economics department. The lunch club offers the opportunity to meet each other. At the same time, the children thoroughly enjoy preparing the meals, as they can see a purpose in their work. During the afternoon, after the lunch, pupils talk informally with the pensioners and gain insight into the lives of old people. The pensioners also enjoy teaching the pupils crafts.

Vivien McCalman was formerly home economics organizer at Erasmus Grange School and Community College, Coventry.

Concerning every teacher

E. A. MacHugh states a case for health education as a valuable part of the core curriculum

Much thought is being given to the core curriculum at present and rightly documents are being prepared to further the cause of this subject. However, if we examine the curriculum closely, subjects are not so important so a range of possibilities we offer pupils.

Have we given enough thought to whether and why some of our pupils arrive in school short of sleep and having had no breakfast? When viewed from this angle the question of the health and well-being of our pupils is the concern of every teacher.

In the past, certain subjects, such as home economics, biology, physical education or religious education were considered the place where whatever rudimentary teaching health education took place. As has been said by some school heads, "Health education is taught in the corridors".

The day for this philosophy is long and truly over and much more serious consideration is now being given to the prevention of ill health and to a more positive approach to health education. In recent years this approach has been shown in the numerous health education, moral education and personal relationships courses which have and are being developed nationally.

In Sheffield we have been involved in the Schools Council project 513 and have found the material has strong links with the work which we do, especially in the area of nutrition work.

Another primary project which started nearly three years ago and which is also proving to be very popular with pupils and teachers is the School Health Curriculum Project (USA "Berkeley Model"). At the invitation of the Health Education Council, a representative of the H.E.C. Sheffield adviser and a head and two teachers from each of six of the authority's schools went to the Rocky Mountain



A simple sponging machine to measure the tar content of cigarettes. Part of the School Health Curriculum Project USA ("Berkeley Model").

regional training centre in Denver, Colorado, to do a training course on the use of materials for the Lung Unit for Grade 5 (10 to 11-year-olds).

It will come as no surprise that some of the material designed for the United States has had to be rewritten by the team for use in our schools but it has three essential features which mark it out as different from the ordinary project.

It relies on a number of outside speakers and films being used at regular intervals during the project. It has a "staircase" approach so that when split into small groups the pupils move around from station to station using flashcards, models, microscopes, simple equipment and written material to reinforce the work.

The pupils do a simple dissection of sheep's lungs and this is linked with the dangers of smoking. There is a lot of science in the

project, and again there is a strong link with home economics and biology. Among the outside speakers are the schools meals adviser and the home economics adviser who contribute items on food and nutrition. This is followed by tasting sessions on foods. It is hoped to extend this project to other interested schools in Sheffield in September.

Dental health is another aspect of the work which was always included in the past in the secondary school home economics programmes but, like many other aspects, is now appearing at a much earlier point in the curriculum. We have a number of thirty-year-olds or 10-year-olds, one of which involves the dental student coming into schools and working with the children, and another working with the area dental officers and their staff and linked with a rolling programme of school visits and in-service courses for teachers in which the advisory teacher with a responsibility for these projects plays a key role.

Here again nutrition teaching is emphasized and we have had small successes in getting some of the schools to abandon the sale of sweets and chocolate biscuits in favour of fruit and crisps.

At secondary level we have been examining a number of approaches to the teaching of health education through the working party for health education and education for personal relationships set up nearly four years ago. In this working party is chaired by the general adviser (home economics/health education) the courses already existing in the home economics field can be readily identified and linked with new approaches. This is especially relevant for child care and child development courses and in the personal relationship field.

The working party has wide representation including doctors, educational psychologists, dentists, the area health education officer, advisers and teachers' union representatives and has proved to be a useful monitoring body and clearing house for information and help to schools.

In the secondary schools there is a new awareness of the importance of examining the field of personal relationships, and much thought and planning is being put into devising suitable courses. These courses are no longer being seen as something in the past—only for the less able. Outside agencies are being used to supply accurate and up-to-date information for teachers, and to arrange visiting speakers where this is necessary.

Looking back over the past five years there has been some quite striking progress in the development of home economics and health education, especially at primary level. Sometimes they stand on their own academic feet as separate subjects. At other times they overlap, link or dovetail together quite naturally.

Miss E. A. MacHugh is general adviser (home economics health education), Sheffield.

Medical Care in Schools

M. Willis and M. E. McLachlan

An up-to-date, simple reference book for the teacher, assistant or secretary who may have to deal with the many and diverse medical situations in schools and colleges. The authors, a school medical officer and a headmistress, describe how medical conditions in children may be recognized and outline safety precautions that should be taken in various parts of the school. They deal systematically with first aid, both trivial and serious; describe and advise on certain physical and psychological problems which may affect children; consider drugs, alcohol and smoking and pinpoint a number of medical situations which demand knowledge of the correct administrative procedures. This is a handbook for the layman, written with no technical or professional jargon, which can be read straight through for general information or consulted quickly and easily for guidance in particular circumstances. Limp £3.25 net

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Bridges the gap between food science texts and cookery books. The 30 experimental units, which can be undertaken in the kitchen or the laboratory, cover all the main types of food, including convenience food. The units can be taken in any order, and the book is, therefore, adaptable to CSE and O-level courses, applied science courses, and OND and HND courses in Catering subjects or Home Economics. Limp £1.95 net

Choose and Cook

Barbara Lamb and David Lamb

"This is very definitely not a recipe book, but a collection of assignments geared to stimulate the younger student to think for herself... The book is very attractively presented, with good clear print throughout. Headings are done in bold, black lettering, and each chapter is well and sometimes amusingly illustrated with black and white sketches. This little book is to be recommended for all who are interested in working through the assignment method." *Education Times* Limp £1.35

Care and Clean

Laundrywork Assignments

Barbara Lamb and David Lamb

This book is intended for use in the Home Economics Department to help in the teaching of laundrywork. It uses a practical approach based on assignments and experiments to create an interest in the care and cleaning of fabrics and equipment required for this subject. Some assignments will occupy the whole of the Home Economics lesson, others require a shorter period of time or can be included in a mixed project of laundry, cookery and housecraft. At the end of each chapter is a section of "Things to Do" and "Find Out", to encourage individual thought. Limp £1

House and Home

Barbara Lamb and David Lamb

For use in the Home Economics department, this book follows the same practical approach based on assignments which has been so successful in their previous books. The book deals with the choice, care and running of the home, decorating and furnishing and the services provided (water, drainage, gas, electricity, refuse disposal). Each chapter begins with assignments based on common domestic problems. Some require research and written solutions; others are practical and can be carried out in a special or general Home Economics lesson. Notes on planning the assignments and general guidance are given. Publication late 1977 Limp £1.50 approx

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Taking food shopping as its central theme, this book looks at wise buying for a variety of circumstances—the working girl or boy shops for one, shopping for the family, shopping for old people—and covers some of the wider aspects of the subject such as shop hygiene and shopping with a toddler. 80 pages £1.25 in preparation for August '77

Understanding the Elderly

Stephanie Holland

Although the book provides a wealth of factual information, the emphasis throughout is on understanding the needs of old people. Thus, it begins by setting the scene as it was in Cran's day and helps the reader to develop an insight into the attitudes of the elderly today. 64 pages £1.15 in preparation for September '77
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We all know that health, physique, and productivity depend on having enough of the right food. But somehow the concept remains largely theoretical, Patty Fisher offers a four stage teaching plan

Towards better food habits

Home economics is one of the most expensive subjects in the school curriculum. As the cost of living rises, so does the cost of teaching, because that living is what home economics is all about.

It is anomalous that our home economics relating, planning of syllabuses, objectives of work, exams, and our cookbooks, were all conceived in the era of cheap food, fuel and labour—which is now gone for ever. But they are all being used today, although the cost of all three is at an all-time high and is likely to go higher.

It is practical now to use leftovers of joint at 90p a lb, and potatoes and cabbage at 12p and 20p a lb, to make shepherd's pie and "Bubble and Squeak"?

Home economists should now aim to teach pupils better food habits, to taste like, eat and choose enough of the right foods for health in Great Britain; accept they should reach home competence, that is the craft and skills to prepare these foods attractively and easily. Which foods are right? And how much is enough?

example, one third of the iron needed by teenagers daily can be supplied by any one of these portions—a teaspoonful curry powder; a small can of baked beans; 4 slices of wholemeal bread; or 1oz of ox liver. A whole day's allowance of Vitamin C can be provided by a small orange; 1oz green or red peppers; two 6oz lettuce, 3lbs apples, 7oz fresh or tinned tomatoes; 3oz raw cabbage, 1oz blackcurrants.

Material to be taught must be carefully selected from textbooks and medical and chemical facts reduced to a minimum. A simple functional approach is recommended, viz. that food is needed for (1) Muscular energy, (2) Growth and (3) Vitality.

The next step is to calculate or collect lists of food portions supplying a percentage or fraction of those selected nutrients, arrange them side by side, and underline those foods appearing in more than one list. We can now see that some foods are "super" foods, because they are good sources of several nutrients.

For example, white bread and flour are good sources of Calories, iron, protein, vitamins B and calcium; cheese and milk have good supplies of Calories, protein, calcium, vitamins B and retinol (Vitamin A); margarine has Calories, vitamins D and retinol. Liver, any kind, is rich in protein, iron, retinol, vitamin B; legumes (peas, beans, lentils) have protein, iron, vitamin and thiamin.

cheese, 4oz orange or juice, 1 standard egg, 6 slices (6oz) mixed brown and white breads, 1oz bacon or oatmeal, 1oz cocoa or 1oz plain chocolate daily; plus, weekly, 1 large portion of liver or kidney, and 6oz polysaturated stearine. For teenagers, the milk and cheese should be doubled.

The group can be described as "rotund for health". It can be put on a tray or in a shopping basket as a visual aid to memory. It can be used by housewives, students in diets, by anyone as a guide to shopping, choice of recipes, budgeting, and for checking the adequacy of a diet. It can also be used by home economics staff as a basis for teaching good nutrition and food preparation.

A concentric teaching plan is suggested, in four stages. Each stage is completed in itself. Begin by teaching the "verdict", that is the liking for and use of the foods in the group. Then give some "evidence" and expand on the function and use of the foods. In the last two stages information is given about selected nutrients.

In stage one pupils learn in like and out the foods in the group for good health. Teaching sessions (80 minutes) are planned round the idea "These foods are good for you... what can we do with these good value foods?"



"This sort of thing's alright but my fella only likes chop suey."

the results should be that pupils are eating good value foods, making a better choice of foods as well as having some of the necessary skills in making meals—which they do easily. Inquiries are likely to show that they really are using what you have taught them.

In stage two we move on from the general aim of "Good foods for health" and "good foods for energy, vitality" to the idea of nutrients in foods (different content) and the value of nutrients. But only selected nutrients are taught, for example, iron, vitamin C, thiamin. These three were mentioned in stage two. Now pupils learn more about them, their function and sources in food.

Attractive recipes, using simple skills, are arranged in a progressive sequence. The teaching line is personal "your health, your food". Food education begins by teaching them to eat and prepare simple cheese dishes, milk shakes, puddings and soups, homemade breads, fruit salad with oranges, cabbage salads, rhubarb cake, sandwiches and spreads, muesli, oatmeal flapjacks and milk.

Graduates from Gloucester

by Marie Edwards

Gloucestershire College of Education is now part of the Gloucester Institute of Higher Education. Its main role is as a home economics teacher training institution.

The college was founded in 1890 by Mrs A. T. Payne of Stroud, of three sisters, another of whom became Mrs Sidney Webb, described as being "beautiful, enthusiastic and humorous". Mrs Payne also had the ability to persuade local influential people to give money so that the school quickly prospered and the number of courses increased to include "teaching diplomas in domestic science, cookery, laundering and housewifery". By 1911 the course included lectures on economic conditions of the time and the history of the

Following the founder there have been four other women principals: Miss Florence Badger, Miss Ruth Whitaker, Miss Ella Taylor and Miss Nancy Shaw. This tradition was broken in 1973 with the appointment of the first male principal, Dr John Taylor. The earliest principals were products of a society in which a knowledge of domestic science was to be useful for all women.

But we have to show that the home economics students were not just a group of women who were brought into the staff and the range of courses was extended to include industrial management. In 1926, a degree course was launched in association with the Bristol University. The principal had returned from a visit to the United States and was keen to see a recognition of the home economics degree as a domestic science degree.

creasing involvement in the home. The courses are designed to develop an awareness of home economics as a multi-disciplinary study, concerned with human relationships, organization and management, integrating aspects of the physical and biological sciences, design, sociology and economics and embodying theoretical and practical components.

Work during the first year forms the core of the course and defines the nature of the contributing disciplines, based on a study of fundamental principles and the application of these to consumer education. Students are required to study a first-year module on the study of home economics. They complete two modules or credits in their main field, one credit in professional studies and one in education.

The students are offered some choice in part of their course in the first year in the fields of applied science, design or socio-economics, so they can develop an area of interest and enrich their understanding of home economics. Home economics students come from different backgrounds. Even if a student has an A level in the subject the boards vary so much that there is little common ground on which to build an area of interest or professional competence. Entry qualifications for the BEd course at Gloucester encourage prospective candidates to take a first home economics. It is felt very strongly that an A level qualification and the A level course which has led up to this is the basis for further work at degree level. The second A level is not specified at Gloucester. Students come with a wide variety of subjects as diverse as art and zoology.

In the past, many colleges have looked for attainment in a science subject—particularly the physical sciences. At Gloucester we are more concerned with evidence of intellectual ability so that we are prepared to accept students if they have any A level. We look in particular for evidence of numeracy and literacy and are particularly interested in O level science passes.

It is clear therefore that students embarking on degree courses in home economics should have a good background in science, particularly in the physical sciences. This first B.Sc. (home economics) was offered until 1950. It was the only home economics degree offered by any university.

From the 1920s onwards, the degree expanded, particularly after the 1950s. During that time the degree diversified to include general teacher training, and a teacher training programme for infants, junior and senior schools. In 1968 the B.Ed. honours degree of Bristol University came to Gloucester.

The college had moved in its premises in 1958 and the buildings were later extended, so that they included general and specialist economics with excellent student accommodation, on a campus on the outskirts of the city. The recently home economics department has been modified, improved and the resource base has been expanded.

and examine the relevance of their subject in the light of changing social attitudes, technological advances, and educational philosophies. They learn about team teaching and teaching mixed ability groups. They recognize the demands of open courses and also devise programmes for the less able. They become aware of the different schools in which the subject is taught.

In July 1978 the first group of home economists with BEd degrees (CNAAs) will be leaving Gloucestershire College. These young women will form one of the first large groups of graduates in home economics in the country has produced. We have to recognize that there are many opportunities for employment in addition to teaching. These include product testing and control, research and product development, consumer organizations, the nationalized industries, social services, journalism and the retail trade.

Some of these careers demand a high degree of scientific knowledge and there is a national shortage of home economics graduates with scientific qualifications of the right kind. The diversity of industrial requirements is encouraging development of a Diploma in Higher Education and the proposal for a BA is aimed to produce graduates equipped to take up work as home economists in these fields. In 13 years' time the college in Gloucester will reach its centenary. No doubt there will be more changes between now and then. Why is certain is that the knowledge developed over the past years will be built on in the future.

Ms K. M. Edwards is head of home economics department at Gloucestershire College of Education.

Class links with schools in Gloucestershire and the surrounding counties are important and very much fostered. In the first year groups of students, together with a tutor, visit a school four or five times as they get to know a group of children well and begin to understand some of the problems faced by home economics teachers in schools.

This work is developed when the teachers come into college to discuss their problems. The children also visit the college. Block teaching takes place in the second and third years. In the second year local schools are used but by tradition the third year teaching practice takes place in Birmingham and Warwickshire where similar links have been established between the schools and the advisers for home economics. The multi-cultural environment of many of these schools has had its influence on our courses. In the third year, for example, students can study the problems of teaching home economics in a multi-cultural area.

In the professional studies part of the course students grapple with the problems of slow learners; they concentrate on the special methods and skills needed for teaching these young men through their own interests in technology and its

Cathy Crawford assesses the education programme of the Family Planning Association

More than the facts

The education unit of the Family Planning Association launched its sex education plans for 1977 in November last year with a programme of courses in London, and hopes of an increase in the number of requests for courses from outside agencies all over the country. It is now a good time to review the work that has been done, and the context of the sex education scene in this country.

Debate about sex education continues and has seemed to increase in its intensity over the last few months. The source of controversy often lies in the aims of a sex education programme. Evaluation is a process in education generally. In health/social sex education it is almost non-existent. But what exactly are the criteria for success in a good sex education programme? A drop in the number of pregnancies in the fourth form, the number of young people who decide not to have sex? How do we measure decreasing levels of guilt or increasing levels of satisfaction in adolescent relationships?

These questions are basic to any sex education activity, and yet no consensus of opinion has been reached. However, over the last four years, and 136 courses run by the FPA education unit, we have noticed a change in emphasis. We have found that there is a general acceptance that young people should have access to facts. Professionals may want to know: how the facts can be taught effectively, how they can be taught in the context of emotions and relationships, and how, odd society's confusion about sexuality, they can be helpful to the young people in their care.

The unit evaluates every course it undertakes, by asking the course members to say whether they found the various sessions useful. It is perhaps the most significant that the independent assessors' evaluation of teachers' comments, on a course run in November, was that "the provision of factual information was over-achieved at the expense of the objective to examine the needs of young people in their relationships". In the similar course run in March, where factual information formed a smaller part of the course, the extra time for discussion on adolescents and their relationships was appreciated.

The sex programme of basic courses held at the FPA in London has been well attended and evaluated, though our expectations about courses run for outside agencies have not been totally fulfilled. Cutbacks in expenditure have hit hard at in-service training facilities in education. Sums of money over £50 are very hard for a college education authority or individual to find for one course. As a result, many of the courses done on an agency basis have been one-day courses. For the same reason we had to cancel our residential school earlier this year. In sex education, where attitudes are all important, the lack of time is a great frustration. Residential courses are perhaps the only opportunity for real in-depth discussion about sensitive areas in sexuality.

The education unit has had 27 course days cumulated since January. It is interesting to note that 14 of these days have been run for the youth service or youth and community work students at colleges of higher education. In general, the youth service has a greater understanding about the educational work of the FPA, as the contact has been from a different angle. In schools, the FPA education history has its roots in speakers, talking about contraception, so many of these involved still see our work being only contraceptive.

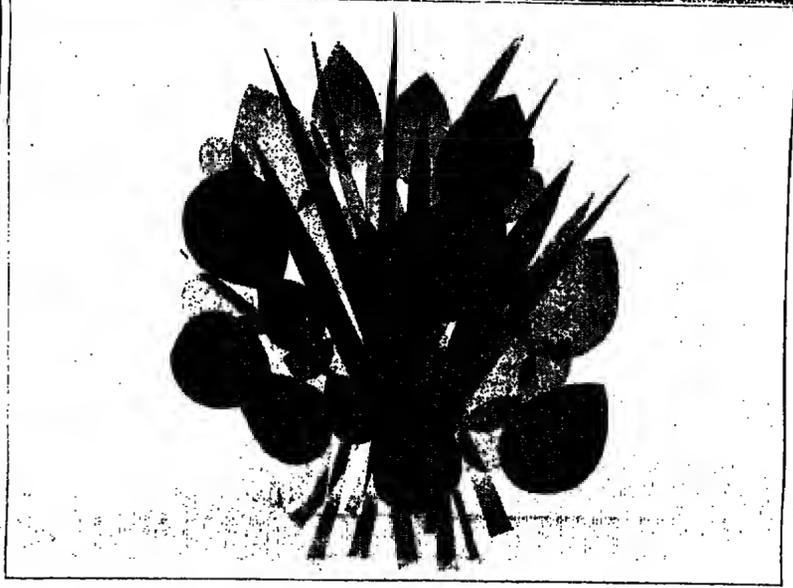
The unit evaluates every course it

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The unit evaluates every course it



A new Unilever Educational Booklet

Plant protein foods

Advanced Series No. 11

Although this booklet is issued as one of the series of Unilever Advanced Level booklets, it differs from the previous titles in one important respect, for it is concerned not only with the present knowledge but also future implications. It deals with a topic of considerable current—and continuing—interest. The purpose in producing this booklet is to present a comprehensive survey of the whole field of plant protein sources, and the potential they possess.

PLANT PROTEIN FOODS is a 20 page booklet which is illustrated with diagrams and photographs throughout. Various aspects of plant protein deal with include:

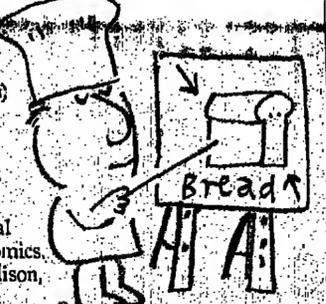
- Protein requirements
- Biological assessment of nutrient protein sources
- Novel protein sources for foods and feedstuffs
- Processing of vegetable protein sources
- Utilization of plant protein
- Safety of novel protein foods
- Copy of PLANT PROTEIN FOODS and other booklets in the series are available at a handling charge of £1 for the first 10 copies and 50p for each additional copy on an order of 100 copies. Twenty copies would cost £1.50 and 100 copies £5.80. There is no limit on the size of the order, nor on the mixture of titles. A free catalogue is available on request from:

Unilever Education Section,
P.O. Box 68, Unilever House, London EC4P 4BD.

Unilever Educational Publications

The Flour Advisory Bureau's Lecture Service to schools and colleges

Members of the Bureau's Lectures and HOME ECONOMICS DEPARTMENT give lectures on food and nutrition (e.g. Choosing Our Food for Health, Modern Life and Modern Meals) and practical talks on the choice and use of bread to audiences of recognised educational establishments consisting of a minimum of 30 students (40 for practical talks).



No fees or expenses are charged. All the lecturers are fully qualified and have had practical experience in nutrition, dietetics and home economics. The head of the department is Mrs. J. Audrey Ellison, B.Sc., F.I.P.S.T., F.A.H.E.

We can evaluate foods by calculating the food portions needed to supply all or a fraction, of the recommended allowances. For Great Britain, the group would be: 1 pint of milk, 1oz

the cost of labour and the price of preparation. Competent pupils can calculate nutritious main dishes, soups, salads, bakery and can produce appealing meals or snack menus. All the competence is presented in a practical way. But such good training depends on having enough food for practice, producing meals for practice, having an outdoor area for the prepared food, and the pupils have to provide their own equipment for learning so equipped with the free power of the mind.

For further information please contact Miss Gillian Niblock, Lectures' Organiser, The Flour Advisory Bureau, 21 Arlington St., London SW1A 1RN, Tel: 01-483 2521.

CITY OF BIRMINGHAM Education Department COUNTY SECONDARY SCHOOLS SCALE 2 POSTS & ABOVE

Unless otherwise stated, for all posts in this section, initial applications should be sent to the Head of the School as soon as possible, together with the names of two referees and a stamped addressed envelope.

COUNTY SECONDARY SCHOOLS SCALE 1 POSTS

Unless otherwise stated, requests for application forms for Scale 1 posts should be sent direct to the Head of the School as soon as possible, together with the names of two referees and a stamped addressed envelope.

BIRMINGHAM CITY COUNCIL

ilea INNER LONDON EDUCATION AUTHORITY Specialist Vacancies for Secondary Teachers

The Authority would be pleased to hear from suitably qualified teachers with experience in the following subjects: DESIGN AND TECHNOLOGY HOME ECONOMICS (Part Time only) NEEDLEWORK (Part Time only)

For an application form, please write to the Educational Officer (TSE), The County Hall, London SE1 7PB (Telephone 01-633 6426).

COUNTY OF SOUTH GLAMORGAN

Required for September unless otherwise stated. PRIMARY ST. JOSEPH'S R.C. PRIMARY SCHOOL, Penarth

County of Cleveland

SECONDARY SCHOOLS

11-16 SCHOOLS SCALE 4-COMMUNICATIONS AND LANGUAGE

LAURENCE JACKSON SCHOOL (Roll 1,538) Church Lane, Gaisborough, Cleveland, TS14 8RD (Tel: Gaisborough 3412)

SCALE 4-ENGLISH

BOYNTON SCHOOL (Roll 1,106) Hall Drive, Acklam, Middlesbrough, Cleveland, TS8 7JX (Tel: Middlesbrough 83776)

SCALE 3-MUSIC

LAURENCE JACKSON SCHOOL (Roll 1,538) Church Lane, Gaisborough, Cleveland, TS14 8RD (Tel: Gaisborough 3412)

MUSIC

ST. THOMAS R.C. SCHOOL (Roll 840) Highfield Road, Middlesbrough, Cleveland, TS4 2QW (Tel: Middlesbrough 245761)

SCALE 1-BIOLOGY

LAURENCE JACKSON SCHOOL (Roll 1,538) Church Lane, Gaisborough, Cleveland, TS14 8RD (Tel: Gaisborough 3412)

SCALE 1-SCIENCE

RYE HILLS SCHOOL (Roll 1,380) Warwick Road, Redcar, Cleveland (Tel: Redcar 4286)

SCALE 1-ENGLISH

BOYNTON SCHOOL (Roll 1,106) Hall Drive, Acklam, Middlesbrough, Cleveland, TS8 7JX (Tel: Middlesbrough 83776)

SCALE 3-MUSIC

LAURENCE JACKSON SCHOOL (Roll 1,538) Church Lane, Gaisborough, Cleveland, TS14 8RD (Tel: Gaisborough 3412)

Bolton Metropolitan Borough

Required for 1st September, 1977. MATHEMATICS, Scale 1. To teach Mathematics throughout the school up to and including C.S.E. level.

MATHEMATICS, Scale 1. This is a temporary appointment from 1st September 1977 to 31st August 1978.

COMMERCE, Scale 1. To teach typing, Commerce, Office Practice and initially for the first year a small amount of English.

GEOGRAPHY, Scale 1. The ability to assist with Economics would be an advantage. Whitwell High School, Whitwell Road, Bolton (Co-educational 611 pupils)

SURREY COUNTY COUNCIL

* FRINGE AREA LUNCH ALLOWANCE £150 PA throughout the County. * Generous re-location expenses in approved cases.

DEPUTY HEADSHIPS

OXTED COUNTY SCHOOL Bluehouse Lane, Oxted RH8 0AB

DEPUTY HEAD TEACHER required September, 1977, as soon as possible for the first year of the Group 11 Comprehensive School for pupils aged 12-18 years.

POSTS OF RESPONSIBILITY

COMPREHENSIVE FRIMLEY, TOMLINSCOTE SCHOOL. HEAD OF COMMERCE. Established Commerce Form level including TYPING, SHORTHAND and OFFICE PRACTICE. Scale 2 for suitable applicant.

HERSHAM, RYDENS SCHOOL. HEAD OF MUSIC to take responsibility for musical and orchestral music in a rapidly developing department.

SCALE 1 POSTS

COMPREHENSIVE ADDLESTONE, THE MEADS SCHOOL. MATHEMATICS teacher required to teach throughout the school up to CSE and 'O' level.

HERFORD AND WORCESTER EDUCATION DEPARTMENT. MATHEMATICS, Scale 1. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

HUMBERSIDE EDUCATION DEPARTMENT. MATHEMATICS, Scale 1. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

HILLINGDON EDUCATION DEPARTMENT. MATHEMATICS, Scale 1. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

LONDON E.B.10. GENERAL SUBJECTS TEACHER. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

City of Manchester Education Committee

Unless otherwise stated all posts are available from September, 1977, and application forms, together with further particulars, should be returned by 18th July, 1977.

SCALE 3

WIRLEY HIGH SCHOOL. DEPUTY HEAD TEACHER. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

SCALE 1

ABRAHAM MOSS CENTRE. DEPUTY HEAD TEACHER. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

SCALE 2

SCHOOL PSYCHOLOGICAL AND GUIDANCE SERVICE. HEAD OF SERVICE. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

SCALE 1+

WIRLEY HIGH SCHOOL. DEPUTY HEAD TEACHER. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

WIRLEY HIGH SCHOOL. DEPUTY HEAD TEACHER. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

SCALE 1

WIRLEY HIGH SCHOOL. DEPUTY HEAD TEACHER. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

KNOWSLEY EDUCATION DEPARTMENT. MATHEMATICS, Scale 1. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

LEICESTERSHIRE EDUCATION DEPARTMENT. MATHEMATICS, Scale 1. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

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LONDON E.B.10. GENERAL SUBJECTS TEACHER. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

NORFOLK EDUCATION DEPARTMENT. MATHEMATICS, Scale 1. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

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Sixth Form and Tertiary Colleges Scale 1 Posts

HICHMOND UPON THAMES EDUCATION DEPARTMENT. MATHEMATICS, Scale 1. Required for September 1977. A TEACHER OF GENERAL SUBJECTS in the first year of the school.

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HESLEY HALL SCHOOL Tickhill, Doncaster, S. Yorks

This independent Residential School for 50 mal-adjusted boys, recognized as efficient by the DES, is now to expand to a second school building, in close proximity, in order to provide residential schooling of a Junior and Senior nature for long-stay pupils.

DEPUTY HEADMASTER (for Hesley Hall School)

A qualified and experienced teacher is required for the senior post, preferably with residential experience but not necessarily. The person should be capable of leading and fully administering a dynamic and industrious group of teachers all involved in the General Subjects teaching of small class groups.

CITY OF BIRMINGHAM EDUCATION DEPARTMENT Remedial Teaching Service

HEAD of Loxella Remedial Centre (Scale 4)

Applicants should have wide experience of remedial work and hold an additional appropriate qualification. Some administrative experience is necessary. The Head of Centre will lead a team of Specialist Teachers providing various support services for schools in the City's area.

BIRMINGHAM CITY COUNCIL

County of Cleveland SPECIAL SCHOOLS

SCALE 3(S) POST (Re-Advertisement)

MILLHOLME SCHOOL E.S.N. (M), Marshall Grove, Brotton, Cleveland, TS12 2JW. Required for January, 1978, a suitably qualified and experienced teacher to be responsible for the co-ordination and further development of the basic skills curriculum in the upper part of the school.

SCALE 2(S) POST (Re-Advertisement)

BALTERGILL SCHOOL (Residential, maladjusted boys), Kirklington, Yem, Cleveland. Required for January, 1978, a qualified and experienced teacher with particular interest and expertise in remedial language activities.

SCALE 1 POST +S.S.A.

FERNDALE SCHOOL E.S.N. (S), College Road, Middlesbrough, Cleveland, TS3 9JL. Required for September, 1977, or as soon as possible, a qualified teacher to work with mentally handicapped pupils.

SCALE 1 POST +S.S.A.

WRENFIELD SCHOOL E.S.N. (S), Wrenfield Road, Stockton, Cleveland, TS15 0AT. Required for January, 1978, a qualified teacher to work with multiply handicapped pupils in the special care section of the school.

Financial assistance with household removal expenses is available in approved cases. Application may be made by letter or an application form obtainable from the Head Teachers at the addresses shown above.

INDEPENDENT Science continued

Engineering Drawing through...
KENT
Kent County Council, Maidstone, Kent.
KENT
Kent County Council, Maidstone, Kent.

SURREY
Surrey County Council, Guildford, Surrey.
SURREY
Surrey County Council, Guildford, Surrey.

SUSSEX
Sussex County Council, Brighton, Sussex.
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Sussex County Council, Brighton, Sussex.

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WILTSHIRE
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Other than by Subject Classification
BRISTOL
Bristol City Council, Bristol, Avon.
BRISTOL
Bristol City Council, Bristol, Avon.

BUCKINGHAMSHIRE
Buckinghamshire County Council, High Wycombe, Bucks.
BUCKINGHAMSHIRE
Buckinghamshire County Council, High Wycombe, Bucks.

CORNWALL
Cornwall County Council, Truro, Cornwall.
CORNWALL
Cornwall County Council, Truro, Cornwall.

DERBYSHIRE
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CO-EDUCATIONAL
Co-educational schools and colleges.
CO-EDUCATIONAL
Co-educational schools and colleges.

COLLEGES OF FURTHER EDUCATION continued
AVON COUNTY
Avon County Council, Bristol, Avon.
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COLLEGES OF FURTHER EDUCATION continued
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Bolton Metropolitan Borough
Applications are invited for the post of
PRINCIPAL
Horwich College of Further Education
which falls vacant in September, 1977, following the retirement of the present Principal. The College, which is based in modern buildings, has a good range of non-advanced courses and is in Burnham Group 3 (Salary £8,880).

By Subject Classification
Classics
AVON AND WILTSHIRE
Avon and Wiltshire County Council, Bath, Avon.
AVON AND WILTSHIRE
Avon and Wiltshire County Council, Bath, Avon.

Physical Education
SURREY
Surrey County Council, Guildford, Surrey.
SURREY
Surrey County Council, Guildford, Surrey.

Mathematics
SURREY
Surrey County Council, Guildford, Surrey.
SURREY
Surrey County Council, Guildford, Surrey.

Further Education
DEPARTMENT OF EDUCATION
Applications are invited for the undernoted posts. All candidates should have relevant industrial or commercial experience where appropriate. Teacher training would be an advantage, but training will be given on an in-service basis if necessary.

LECTURER GRADE I Bakery/Patisserie
The successful applicant will be required to teach bakery subjects and patisserie to catering students and to instruct and supervise bakery students. Salary scale: Lecturer Grade I within the range £2,468-£4,377 per annum plus (i) £312 and (ii) £132-£180 annual salary supplements.

SURREY COUNTY COUNCIL
Principal Lecturer in complementary studies
Applications are invited from Social Science Graduates for the above post. The person appointed will undertake significant teaching and administrative duties in a department which provides courses in some 4,000 students studying a range of subjects related to vocations in the Communications industry at anything from apprentice to degree level.

COLLEGES OF HIGHER EDUCATION continued

CLYWD ATHLETIC COLLEGE OF CYMRYD THE NORTH EAST WALLS INSTITUTE OF HIGHER EDUCATION... COLLEGE OF MANAGEMENT AND BUSINESS ADMINISTRATION... COLLEGE OF EDUCATION...

LANCASHIRE COLLEGE OF HIGHER EDUCATION... SUBJECT AREA IN... APPLICATIONS ARE INVITED FOR THE FOLLOWING POSITIONS:... FURTHER DETAILS MAY BE OBTAINED FROM THE DIRECTOR'S OFFICE...

LONDON COLLEGE OF HIGHER EDUCATION... SOUTH LONDON COLLEGE OF HIGHER EDUCATION... WILTSHIRE COLLEGE OF HIGHER EDUCATION... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

Adult Education... BUCKINGHAMSHIRE WYCOMBE DIVISION... COMMUNITY AND SOCIAL CENTRES... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

DEBBY COLLEGE OF HIGHER EDUCATION... NORTHAMPTONSHIRE... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

GLWYST COMMUNITY COLLEGE OF HIGHER EDUCATION... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

LEICESTER COLLEGE OF HIGHER EDUCATION... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

Teacher (Observation & Assessment Centre) Salary: Scale 1 plus 879 p.a. Extraneous Duties Allowance plus £584 p.a. Forfeited Remand Home Allowance plus £120 Outer Fringe Payment (if non-resident)...

STAFFORDSHIRE EDUCATION AUTHORITY... APPLICATIONS ARE INVITED FOR THE FOLLOWING POSITIONS:... FURTHER DETAILS MAY BE OBTAINED FROM THE DIRECTOR'S OFFICE...

Community Homes and Associated Institutions Headships and Deputy Headships... APPLICATIONS ARE INVITED FOR THE POST OF HEAD OF SCHOOL...

SURREY THE ROYAL MILITARY COLLEGE... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

EAST SUSSEX HEADSHIPS... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

YOUTH AND COMMUNITY SERVICE... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

BROMLEY... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

ISLINGTON SOAT CLUB... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

MAGIC ART, DISMAL SCIENCE Reading is now at last being seen for what it is - a crucial gift without which no citizen can easily take his place in society. The July 15 issue of the Times Educational Supplement will contain articles by teachers, parents and specialists on a wide variety of aspects of learning to read, from the initial stages for infants to the problems of adult illiterates.

SOUTHWARK CATHOLIC CHILDREN'S SOCIETY ST. VINCENT'S, DARTFORD, KENT RESIDENTIAL SOCIAL WORKERS (resident or non-resident) This Catholic Community Home provides residential care for boys from 13 years upwards who are in the care of the London Boroughs. Applications are invited from candidates, preferably Roman Catholics, for the post of Residential Social Worker, resident or non-resident.

Primary School Teacher Cameroun-West Africa We are about to establish a primary school at Edes in the Cameroun to initially accommodate 10 children of our British expatriate staff employed on the construction of a pulp mill. The children's ages will range from 4-11 years and the first term commences in early October. In close association with a local French expatriate company school.

GERMANY The Centre for British Teachers Limited has a number of vacancies remaining for teachers wishing to teach ENGLISH IN GRAMMAR SCHOOLS (GRAMMARSCHULEN) IN NORDRHEIN-WESTFALEN for the academic year 1977/78.

YOUTH AND COMMUNITY SERVICE continued... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

LAMBETH COMMUNITY EDUCATION... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

OXFORDSHIRE COUNTY COUNCIL... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

Overseas Appointments... SYDNEY TEACHERS' COLLEGE LECTURERS... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

Northamptonshire Education Department... APPLICATIONS ARE INVITED FOR THE POST OF DEPUTY HEAD OF SCHOOL...

NATIONAL CHILDREN'S HOME GLAMORGAN Haadlands, Penarth Applications are invited for the post of HEAD of the Community Home with Education on the Premises. The NCH is looking for a well qualified and experienced person to provide effective, imaginative and professional leadership.

EAST SUSSEX COUNTY COUNCIL DEPUTY WARDEN required HOLLINGTON YOUTH AND COMMUNITY CENTRE St. Leonards-on-Sea, Sussex Applications are invited from suitably qualified persons for this post which becomes vacant on 1st September, 1977.

Wellingborough Boys' Club Full Time Youth and Community Worker Wellingborough is an expanding town in the rural county of Northamptonshire. The club is sponsored and managed by a voluntary management committee.

Representative for East and Central Africa Our current representative returns to the U.K. and 1977. His ideal successor will probably be a graduate, in his/her 20's, single and with at least one year's experience of educational publishing or teaching.

Further details and application form from the Area Education Officer, 20 Watlington Square, Hastings. Closing date: Friday, 15th July.

Further details and application form from the Area Education Officer, 20 Watlington Square, Hastings. Closing date: Friday, 15th July.

HEAD OF NEW INTERNATIONAL SCHOOL

(Iran)
Araham Foundellon, Kerman Headmaster required for September, 1977, to plan and establish new British-type International school and to be responsible for all educational aspects; due to (3 to 10 years) in all educational aspects; due to open September, 1979, for selected age-groups. Degree and teacher's certificate plus 15 years' teaching experience including 5 years as head of all-range school with boarding accommodation. Overseas experience desirable, also experience of planning school buildings. Men only; preferably 35 to 50 years.
Salary: £20,000 pa approx (under review).
Benefits: free furnished accommodation, family fares, baggage allowance, 10 per cent terminal gratuity, free medical facilities. Two-year contract renewable.
Return fares air paid. Local contract is guaranteed by the British Council.
Please write briefly stating qualifications and length of appropriate experience quoting relevant reference-number and title of post for further details and an application form to the British Council (Appointments), 65 Davies Street, London W1Y 2AA.

THE BRITISH COUNCIL

OVERSEAS Appointments continued

SWITZERLAND
University vacancy for Senior Lecturer in the Faculty of Education. The position is for a full-time post with experience of research and teaching work necessary.
Good salary.
Interviews London mid-July 1977.
Applications should be sent to the Director of Studies, University of Applied Sciences, CH-1015 Yverdon, Switzerland.

BOYBWANA
Lecturer in Mathematics in the Department of Mathematics, University of Botswana, Gaborone. The post is for a full-time position with a salary of P12,000 per annum. The successful candidate should have a B.Sc. (Hons) in Mathematics and a Ph.D. in Mathematics. He should have at least 5 years' experience in teaching Mathematics at the university level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, University of Botswana, Gaborone, Botswana.

BOYBWANA
MATHEMATICS TEACHER
The Ministry of Education, Botswana, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Gaborone, Botswana.

ARGENTINA
MATHEMATICS TEACHER
The Ministry of Education, Argentina, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Buenos Aires, Argentina.

LEBANON
MATHEMATICS TEACHER
The Ministry of Education, Lebanon, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Beirut, Lebanon.

CANADA
MATHEMATICS TEACHER
The Ministry of Education, Canada, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Ottawa, Canada.

FINLAND
MATHEMATICS TEACHER
The Ministry of Education, Finland, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Helsinki, Finland.

GERMANY
MATHEMATICS TEACHER
The Ministry of Education, Germany, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Bonn, Germany.

SPAIN
MATHEMATICS TEACHER
The Ministry of Education, Spain, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Madrid, Spain.

DANISH ISLANDS
MATHEMATICS TEACHER
The Ministry of Education, Danish Islands, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Copenhagen, Danish Islands.

OPPORTUNITIES IN NORTHERN NIGERIA

The Kano State Government has recently established a Management Board which has specific responsibility for promoting the study of the sciences at secondary school level.

As a result of this brief, applications are now invited from suitably qualified candidates for the following positions:

PRINCIPAL
N7,784-N8,724
Candidates should hold a scientific honours degree and a diploma in Education. Considerable relevant experience and proven administrative ability are also essential.

VICE-PRINCIPAL
N7,104-N7,752
Candidates should have the same qualifications as those applying for the position above, plus proven relevant experience and the ability to act as coordinator between the Principal and members of the teaching and ancillary staff.

DEPARTMENT HEADS
N5,460-N7,752
Vacancies exist at this level for the following departments: English; Mathematics; Physics; Chemistry; Biology; Geography; and Technical Drawing. Candidates should hold a relevant honours degree and, ideally, a diploma in Education. Proven teaching experience is essential.

Nigeria

OVERSEAS Appointments continued

CANADA
MATHEMATICS TEACHER
The Ministry of Education, Canada, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Ottawa, Canada.

LIBYA
MATHEMATICS TEACHER
The Ministry of Education, Libya, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Tripoli, Libya.

THAIKA
MATHEMATICS TEACHER
The Ministry of Education, Thailand, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Bangkok, Thailand.

TURKEY
MATHEMATICS TEACHER
The Ministry of Education, Turkey, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Ankara, Turkey.

AFRICA
MATHEMATICS TEACHER
The Ministry of Education, Africa, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Pretoria, Africa.

TASMANIA
MATHEMATICS TEACHER
The Ministry of Education, Tasmania, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Hobart, Tasmania.

ITALY
MATHEMATICS TEACHER
The Ministry of Education, Italy, is seeking a qualified Mathematics teacher for a full-time position in a secondary school. The successful candidate should have a B.Sc. (Hons) in Mathematics and at least 5 years' experience in teaching Mathematics at the secondary level. He should also have experience in supervising the work of other staff members.
Applications should be sent to the Director of Studies, Ministry of Education, Rome, Italy.

UNIVERSITY OF PETROLEUM AND MINERALS DHAHRAN-SAUDI ARABIA MATHEMATICIANS

The Department of Mathematical Sciences has vacancies for the Academic Year 1977-78 starting 1 September, 1977, for Faculty of Ph.D. or M.Sc. standing in Mathematics for lecturing duties primarily in the first three years of a five-year course. Preference will be given to more mature candidates particularly those who have had experience of lecturing in English to students for whom this is a second language. Minimum regular contract for two years, renewable. Competitive salaries and allowances. Free air conditioned and furnished housing, free air transportation to and from Dhahran each two-year tour. All attractive educational assistance grants for school-age dependent children. Local transportation allowance in cash each month. All earned income without Saudi taxes. Ten-month duty each year with two-month vacation paid and possibility of participation in University's on-going summer programmes with adequate additional compensation. Since personal interviews of prospective candidates will be held during July, 1977, apply urgently with complete resume on academic, scientific, professional background, list of references, a complete list of publications with clear indication of those papers published in related professional magazines and/or journals, research details, and with copies of degrees/theses/dissertations including personal data, such as: home and office addresses, telephone numbers, family status (with a maiden name, names of children, age and sex) to:

University of Petroleum and Minerals, c/o Gabbites-Thring Services Ltd., Brighton House, 27 & 29, Rockville Street, Piccadilly, London W1X 2BR.

OVERSEAS TEACHING POSTS

3 TEACHERS OF ENGLISH (SAUDI ARABIA)
Institute of Public Administration, Riyadh. Candidates, men only, must be graduates with a university TEFL qualification and 1 year's ELT experience. Salary: 38,400 SR—80,000 SR per year (16,336-£8,900 approx). No local taxation. 12% bonus. Benefits: free accommodation with basic furnishings. Single men will be required to share accommodation. 1 year contract renewable. 77 AD 98, 106-107

DIRECTOR OF STUDIES (GREECE)
The British Council Institute, Salonika. Candidates, preferably in the age range 30-45 should be university graduates with a PGCE with experience. Previous experience as Director of Studies or Head of Department desirable. Salary: Dis 19,000—913 30,770 per month (approx. £3,766—£5,808 p.a.). Benefits: annual bonus; 2 year local contract renewable. 77 RD 20

TEACHER OF ENGLISH (IRAN)
Irano-British Ship Management Co., Abadan. To teach general and technical English to FCE level to naval cadets and ratings, and help prepare ESP materials as required. Degree/teaching certificate and 3 years' relevant experience essential. Postgraduate TEFL qualification and experience of materials preparation/ESP desirable. Salary: £3,732-£4,374 p.a. Benefits: Abadan Allowance; free furnished accommodation; employer's portion of UK superannuation; 2 year contract with the British Council. 77 HD 34

ELT ADVISER (SENEGAL)
Ministry of National Education, Dakar. To advise the Minister of National Education on all aspects of ELT in schools, co-ordinate ELT methods, review examinations, advise on teacher training, organise in-service courses for teachers and inspect schools. Degree, preferably in English or Modern Languages, MA in Applied Linguistics or full-time (one year) Diploma in ELT, a minimum of 5 years' appropriate overseas experience and knowledge of French essential. Salary: £5,210 p.a.—£7,054 p.a. + 10% Inducement allowance. Benefits: free accommodation; overseas and children's allowances and other benefits; 2 year contract renewable. 77 CE 13

2 TEACHERS OF ENGLISH (BAHRAIN)
British Council Teaching Centre, Manama. Duties will include 18 hours (Maximum) ELT, materials production and teacher training. Candidates, single men only, should have a university TEFL qualification and 3-4 years' relevant experience. Salary: £3,732-£4,374 p.a. No local taxation. Benefits: free furnished accommodation (shared); overseas allowance 1981-1982 according to salary; 2 year contract renewable. 77 AO 111-112

TEACHER OF ENGLISH (ITALY)
The British Council Institute, Naples. Candidates should hold a degree, preferably in English or Modern Languages, together with a postgraduate TEFL qualification and have a substantial, varied EFL experience. Salary: £4,388-£5,818 p.a. Benefits (all posts): accommodation allowance; personal allowance; children's education allowance (excluding instructors); employer's portion of UK superannuation; 2 year contract. 77 HO 117

ADVISER IN ESP (EGYPT)
University of Alexandria. To teach and prepare materials for: MA in English Language Studies; ESP courses for postgraduate medical students and for teachers from Dentistry, Engineering and other Faculties. Degree and MA in Applied Linguistics (or 1 year University Diploma in TEFL), at least 5 years' relevant experience (including ESP), preferably overseas and at university level. Salary: £5,210-£7,054 p.a. + 10% Inducement. Benefits: free furnished accommodation; personal and children's allowances; 2 year contract. 77 HU 103

LECTURER IN ENGLISH (SOUTH AFRICA)
University of Fort Hare, Alice. Lecturer to run Practical English Course. Degree in English and experience of tertiary level English teaching essential. 1 year University qualification in TESL desirable. Single candidate only. Salary: £4,940-£6,514 p.a. approx. Benefits: free furnished accommodation; employer's portion of UK superannuation; 3 year contract. 77 HU 62

AUDIO-VISUAL ENGINEER (IRAN)
British Council Teaching Centres (based in Tehran). To service, maintain and advise on installation of AV equipment in 5 Centres, (Tehran, Isfahan, Mashhad, Shiraz, Tabriz). To create audio, CCTV studios, to collect information and maintain records, to train technicians. 2 years' experience of servicing a range of media equipment including CCTV and audio components essential. C&G Telecommunications Certificate or HNC with electronics option desirable also relevant overseas experience. Single candidate only. Salary: £4,589-£5,818 p.a. Benefits: accommodation allowance; employer's portion of UK superannuation; baggage and installation allowances; 2 year contract renewable. 77 HQ 110

ASSISTANT DIRECTOR OF STUDIES (ESP) 2 SENIOR INSTRUCTORS (ESP) 2 INSTRUCTORS (ESP) (IRAN)
British Council Teaching Centre, Tabriz. Main duties under contract to teach ESP in Faculties of Engineering/Medicine in University of Azarbaijan. To supervise and co-ordinate teaching, including programme planning, materials design, teaching instruments, liaison with university authorities, to teach 8 hours per week; to develop in-service training programme. Degree plus MA in Applied Linguistics or equivalent plus 9 years' TEFL/ESP experience including ESP at University level. Single or married candidates (max 22 primary age children). Salary: £6,230-£7,054 p.a. Senior Instructors (1 per Faculty); responsible for day to day running and design of ESP programme (including ESP at University level) of 18 hours per week (max 22 primary age children). Degree plus MA in Applied Linguistics (or equivalent in Balance education) plus 8 years' relevant TEFL/ESP or Science education/ESP experience. Single or married candidates (max. 2 primary age children). Salary: £5,210-£6,026 p.a. Instructors: To teach 20 hours per week and help prepare materials. Degree plus 1 year university qualification in TEFL and 4 years' TEFL experience including ESP. Single candidates only or married couple both to teach (no children). Salary: £4,589-£5,818 p.a. Benefits (all posts): accommodation allowance; personal allowance; children's education allowance (excluding instructors); employer's portion of UK superannuation; 2 year contract. 77 HO 117

2 TEACHERS OF ENGLISH (BAHRAIN)
British Council Teaching Centre, Manama. Duties will include 18 hours (Maximum) ELT, materials production and teacher training. Candidates, single men only, should have a university TEFL qualification and 3-4 years' relevant experience. Salary: £3,732-£4,374 p.a. No local taxation. Benefits: free furnished accommodation (shared); overseas allowance 1981-1982 according to salary; 2 year contract renewable. 77 AO 111-112

TEACHER OF ENGLISH (ITALY)
The British Council Institute, Naples. Candidates should hold a degree, preferably in English or Modern Languages, together with a postgraduate TEFL qualification and have a substantial, varied EFL experience. Salary: £4,388-£5,818 p.a. Benefits (all posts): accommodation allowance; personal allowance; children's education allowance (excluding instructors); employer's portion of UK superannuation; 2 year contract. 77 HO 117

Return fares are paid. Local contract is guaranteed by the British Council. Please write briefly stating qualifications and length of appropriate experience, quoting relevant reference number and title of post for further details and an application form to The British Council (Appointments), 65 Davies Street, London W1Y 2AA.



ELECTRONICS TEACHERS

£7,250 TAX-FREE

Electronics Teachers are required to join the staff at the King Fahd Air Academy at Riyadh, Saudi Arabia, where they will give instruction to students of the Royal Saudi Air Force who are being trained as pilots.

Applications are invited from graduates aged 28-50, with a degree in Electronic or Electrical Engineering and at least three years' teaching experience.

The successful candidates will receive free accommodation, mess, medical care and other benefits. There is also generous travel-paid leave to the UK.

Please apply with brief details of appropriate experience to: The Personnel Officer (S.A.) Dept. 601/755, Saudi Arabian Super Dept., British Aircraft Corporation, Warton Aerodrome, Preston, Lancs. PR4 1AX.

Our free colour brochure will tell you how much more Saudi Arabia can offer you!

THE HIGHER INSTITUTE OF ELECTRONICS BENI WALID

The Embassy of the Socialist People's Libyan Arab Jamahiriya

The Institute of Electronics caters mainly for undergraduates and lecturers and is conducted in English, Italian, Urdu and Arabic. It offers courses in Electronics and Communications Engineering leading to a B.Sc. Degree. The Institute is situated at Beni Walid, 170 km from Tripoli, where all students will still use accommodation on campus. Members of staff are strongly encouraged to initiate their own research.

- Vacancies for staff members exist in the following fields:
1. Mathematics
 2. Physics
 3. Engineering Drawing and Descriptive Geometry
 4. Mechanical Engineering
 5. Mechanical Workshop Supervisors
 6. English Language (preference will be given to native speakers with TEFL experience)
 7. Circuit Theory
 8. Electronics
 9. Computer Sciences
 10. Communications
 11. Instrumentation and Control
 12. Microprocessors and Radar Technology
 13. Technicians are also required to run the various Laboratories of the above fields.

The minimum qualifications for Academic Staff are M.Sc. and/or Ph.D. (teaching experience is preferred).

The minimum qualification required for Technicians is a City and Guilds Technician's Diploma or equivalent (preference will be given to candidates with previous experience).

Grade	SALARY GRADE (ANNUAL)		Total Increment
	From	To	
Professor	8200 LD	6480 LD	120 LD
Associate Prof.	6040	5780	120 LD
Assistant Prof.	4580	5040	120 LD
Lecturer	4180	4562	120 LD
Asst. Lecturer	3510	4150	120 LD
Lab. Technician	Salary dependent upon qualifications and experience		

- In addition staff members receive the following benefits:
1. The Institute provides tourist class air tickets for the staff member, his wife and four members of his family under the age of 13, to and from the place of recruitment to Libya.
 2. The Institute will pay 25% of the excess baggage charge at the beginning and end of the staff members service.
 3. Fully furnished accommodation is provided by the Institute.
 4. A tax free gratuity of one month's salary is given for each subsequent year of service.
 5. The Institute provides full medical service for staff members and their families. Successful candidates will take up teaching posts in September, 1977. Interviews will be held in mid-July.
- Suitably qualified persons are invited to send curriculum vitae to: Eng. Mohammed Surf, Higher Institute of Electronics, P.O. Box 12041, Tripoli, Libya.

COLLEGE OF TECHNOLOGY CALABAR, NIGERIA

Applications are invited for the following posts:

- BUSINESS STUDIES**
Principal Lecturer, Senior Lecturer: Accounting, Management and Civil Accounting, Taxation, Management, Finance and Economics.
- CIVIL ENGINEERING**
Senior Lecturer and Lecturers: Soil Mechanics, Highway Engineering, Surveying, Structures, Hydraulics and Hydrology, Water Supply and Sewage Disposal, Senior and Technical Instructors: Building Construction, Woodwork, Scaffolding and Contracting, Quantities and Specifications, Estimating and Estimating.
- ELECTRICAL ENGINEERING**
Principal Lecturer, Senior Lecturer, Lecturers, Principal Technical Instructors and Technical Instructors: Electrical and Electronic Engineering, Power, Generation and Transmission, Supply and Utilization, Energy Conversion.
- ENVIRONMENTAL STUDIES**
Principal Lecturer, Senior Lecturer, Lecturers: Architecture, Land Surveying, Quantity Surveying, Town Planning, Building Surveying, Urbanisation and Estate Management.
- MECHANICAL ENGINEERING**
Principal Lecturer, Senior Lecturer, Lecturers: Thermodynamics, Refrigeration Production Engineering, Auto-motive Engineering, Theory of Machines, Fluids, Strength of Materials.
- TECHNICAL INSTRUCTOR AND TECHNICAL INSTRUCTORS**
In Air Conditioning, Refrigeration, Automobiles Engineering and Plant Engineering.

LANGUAGE AND COMMUNICATION
Principal Lecturer, Senior Lecturer, Lecturers: English, Technical Communication, Journalism.

NATURAL AND APPLIED SCIENCES
Lecturers and Senior Technical Instructors: Physics and Biology.

CONDITIONS OF APPOINTMENT
All lecturing posts are degree appropriate professional qualifications. Lecturers with postgraduate experience and some years' experience in lecturing up to Higher National Diploma level is required. Senior applicants will be offered increased appointments and other above two-year contracts.

SALARY RANGE

Grade	Annual	Contract Addition
Principal Lecturer	£11,611-£11,611	£1,161-£1,161
Senior Lecturer	£8,138-£8,138	£1,161-£1,161
Lecturer	£5,665-£5,665	£1,161-£1,161
Senior Technical Instructor	£4,552-£4,552	£1,161-£1,161
Technical Instructor	£3,439-£3,439	£1,161-£1,161

Other Supplementaries may be available to British Nationals. Other benefits include furnished housing, car loan and allowance, medical and dental care, leave allowances, low taxation, etc. Details and application forms should be obtained by telephoning the nearest British Consulate.

KENFORD ASSOCIATES
48 Warren Road, Guildford
SURREY GU1 2HE
Telephone: Guildford (0483) 68877
INTERVIEWS WILL TAKE PLACE DURING JULY.

THE BRITISH COUNCIL

